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Montana Basin Outlook Report

April 1, 1998

HELIA, MONTANA 59020



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Basin Outlook Reports

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How forecasts are made

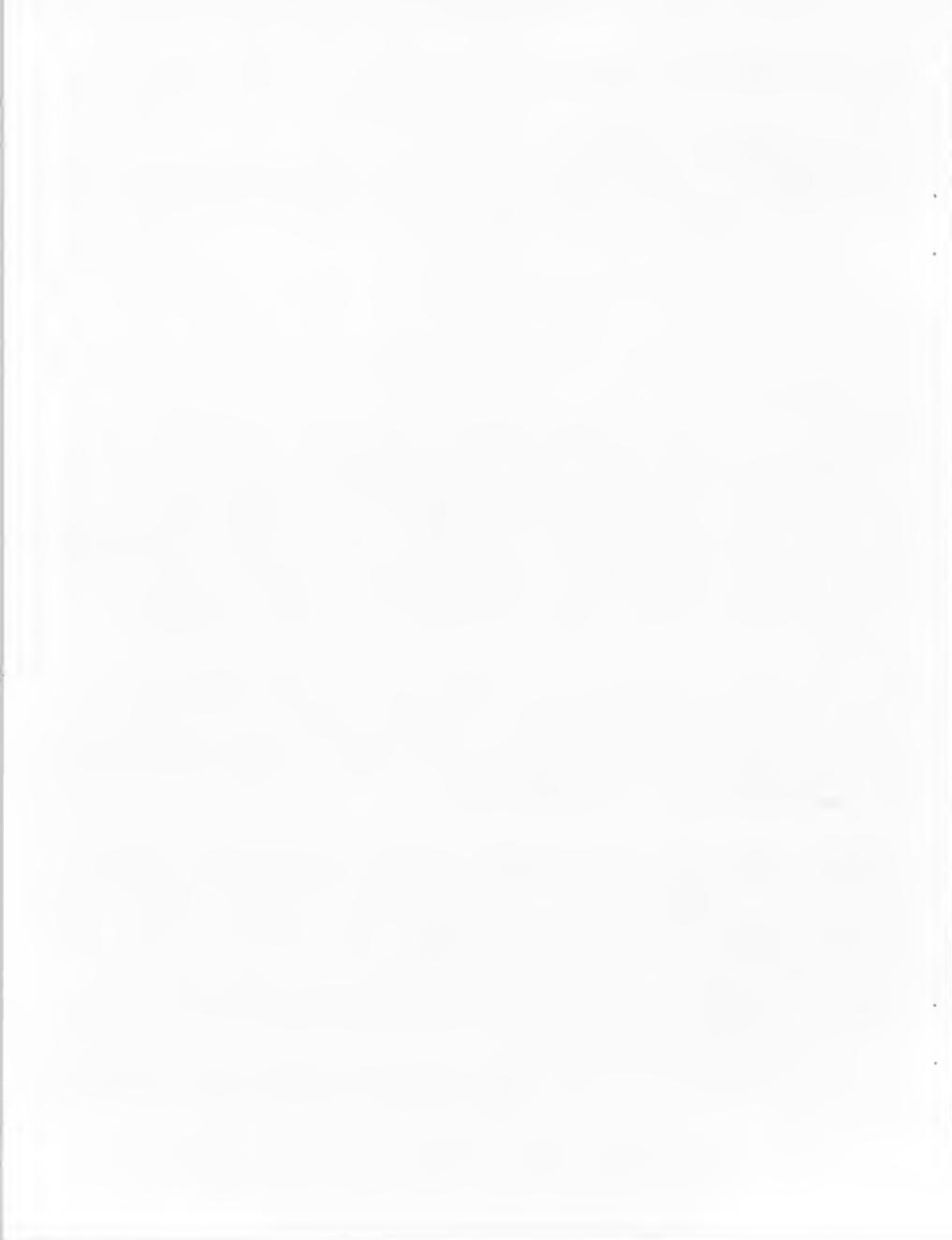
Most of the annual streamflow in the Western United States originates as snowfall that has accumulated high in the mountains during winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when it melts. Predictions are based on careful measurements of snow water equivalent at selected index points. Precipitation, temperature, soil moisture and antecedent streamflow data are combined with snowpack data to prepare runoff forecasts. Streamflow forecasts are coordinated by Natural Resources Conservation Service and National Weather Service hydrologists. This report presents a comprehensive picture of water supply conditions for areas dependent upon surface runoff. It includes selected streamflow forecasts, summarized snowpack and precipitation data, reservoir storage data, and narratives describing current conditions.

Snowpack data are obtained by using a combination of manual and automated SNOTEL measurement methods. Manual readings of snow depth and water equivalent are taken at locations called snow courses on a monthly or semi-monthly schedule during the winter. In addition, snow water equivalent, precipitation and temperature are monitored on a daily basis and transmitted via meteor burst telemetry to central data collection facilities. Both monthly and daily data are used to project snowmelt runoff.

Forecast uncertainty originates from two sources: (1) uncertainty of future hydrologic and climatic conditions, and (2) error in the forecasting procedure. To express the uncertainty in the most probable forecast, four additional forecasts are provided. The actual streamflow can be expected to exceed the most probable forecast 50% of the time. Similarly, the actual streamflow volume can be expected to exceed the 90% forecast volume 90% of the time. The same is true for the 70%, 30%, and 10% forecasts. Generally, the 90% and 70% forecasts reflect drier than normal hydrologic and climatic conditions; the 30% and 10% forecasts reflect wetter than normal conditions. As the forecast season progresses, a greater portion of the future hydrologic and climatic uncertainty will become known and the additional forecasts will move closer to the most probable forecast.

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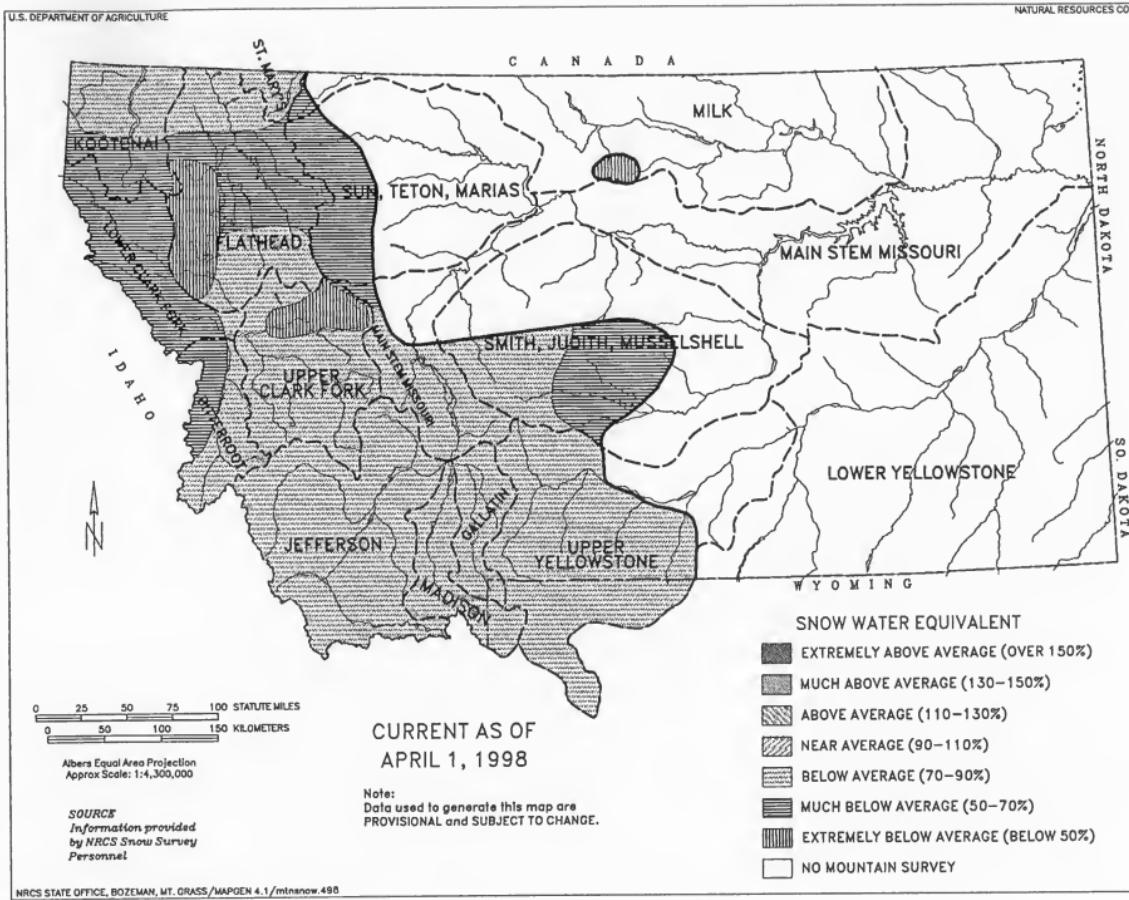
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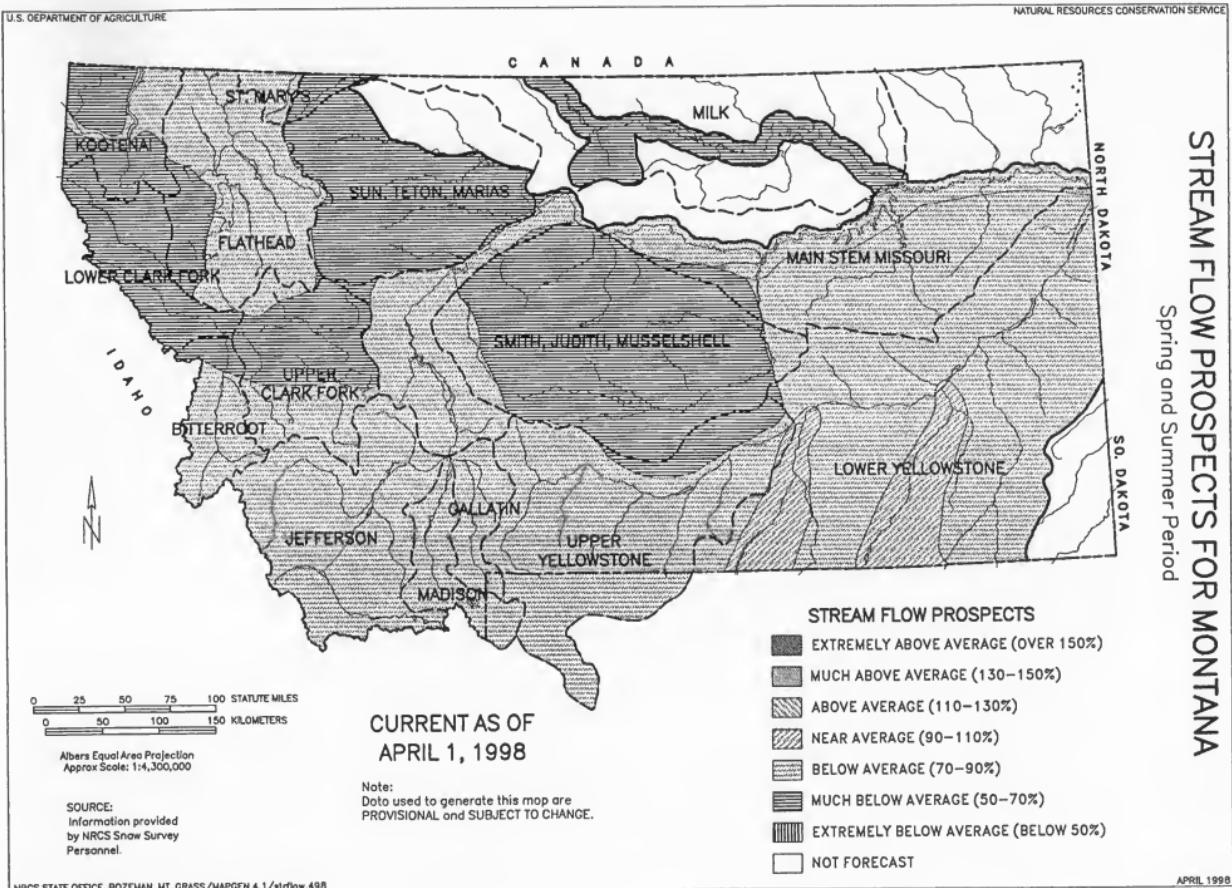
MOUNTAIN SNOWWATER EQUIVALENT FOR MONTANA

NATURAL RESOURCES CONSERVATION SERVICE

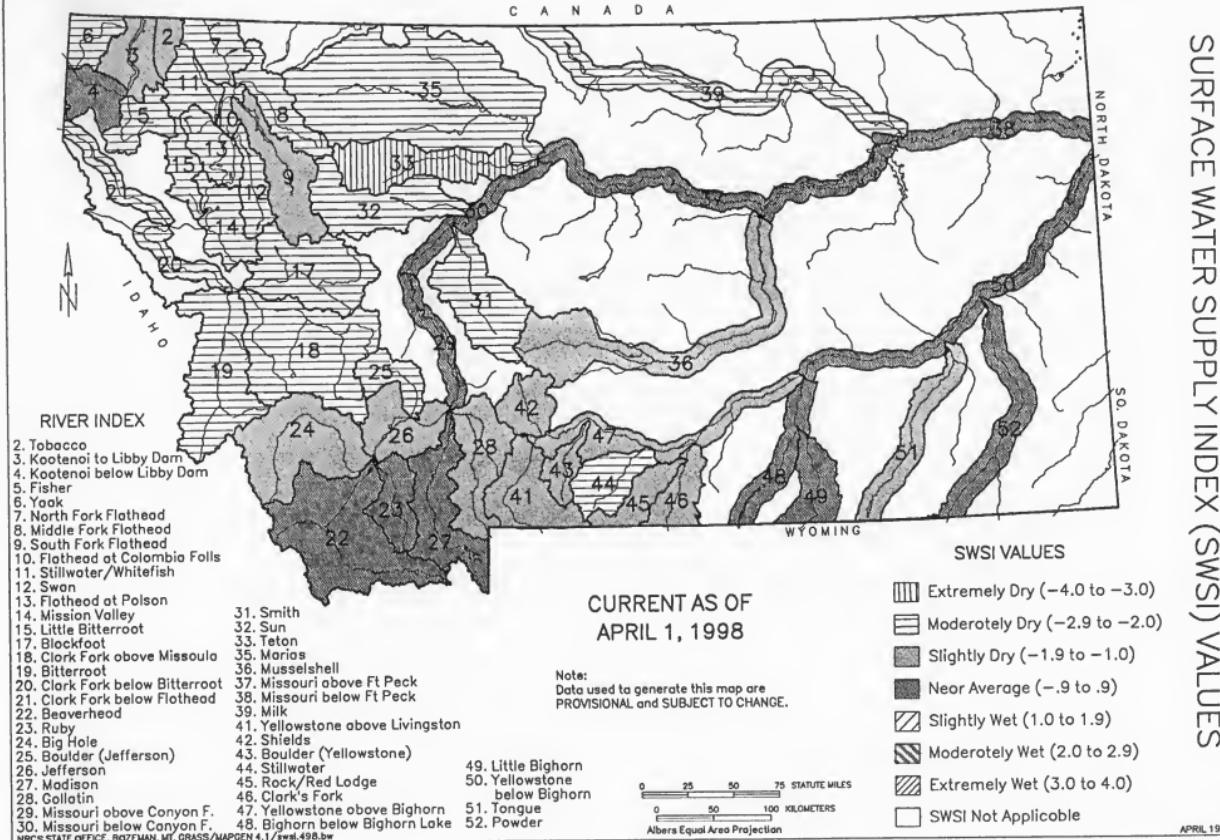


STREAM FLOW PROSPECTS FOR MONTANA

Spring and Summer Period







B A S I N S U M M A R Y O F
S N O W C O U R S E D A T A

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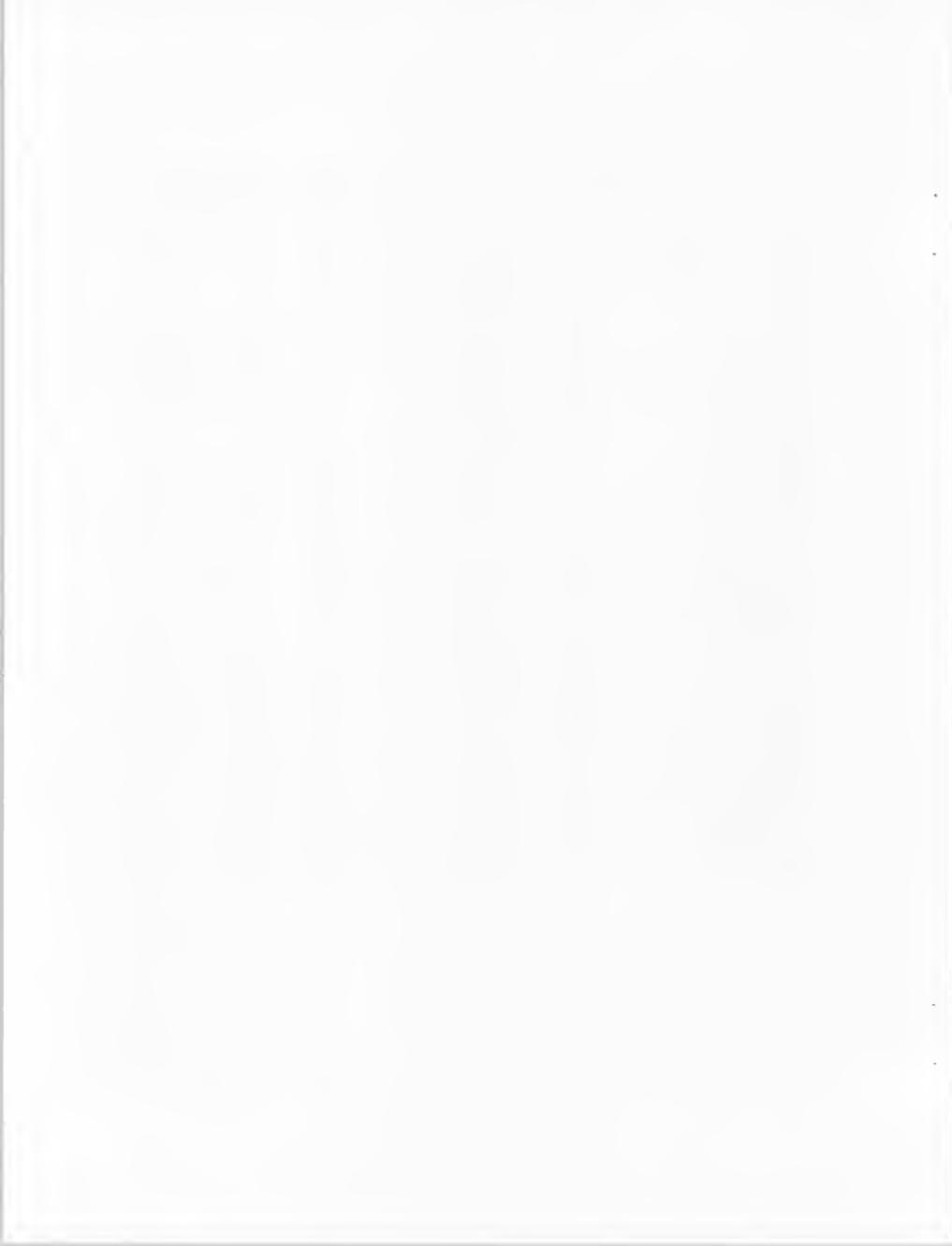
SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1961-90
MONTANA						
ABE LINCOLN	4440	3/26/98	38	14.1	31.0	--
ABUNDANCE LAKE	8800	4/01/98	---	16.4E	28.0	20.8
ALBRO LAKE PILLOW	8300	4/01/98	---	15.4	27.4	--
AMBROSE	6480	4/01/98	---	9.4E	19.7	13.2
ASHLEY LAKE	4000	3/28/98	10	2.8	10.5	5.8
ARCH FALLS	7350	3/26/98	27	8.2	18.0	12.8
ASHLEY DIVIDE	4820	3/31/98	10	3.2	12.3	6.6
BADGER PASS PILLOW	6900	4/01/98	---	23.0	46.3	36.5
BALD RIDGE	7500	3/26/98	31	9.1	19.4	13.4
BANFIELD MTN PILLOW	5600	4/01/98	---	14.0	36.4	20.2
BAREE CREEK	5500	3/30/98	76	31.8	59.9	45.3
BAREE MIDWAY	4600	3/30/98	64	24.3	51.6	35.1
BAREE TRAIL	3800	3/30/98	15	6.0	17.5	8.4
BARKER LAKES PILLOW	8250	4/01/98	---	12.1	18.6	15.4
BASIN CREEK PILLOW	7180	4/01/98	---	9.7	10.4	8.7
BASSOO PEAK	5150	3/31/98	15	5.0	16.5	11.3
BEAGLE SPGS PILLOW	8850	4/01/98	---	9.4	12.3	8.4
BEAR BASIN	8150	3/26/98	50	16.5	26.9	21.4
BEAVER CREEK PILLOW	7850	4/01/98	---	17.5	29.6	18.3
BERRY MEADOW	7000	3/27/98	15	4.2	8.8	8.0
BIG CREEK	6750	3/30/98	88	32.6	59.8	45.7
BIG SNOWY	7150	3/26/98	40	11.1	21.6	22.4
BISSON CREEK PILLOW	4920	4/01/98	---	8.8	19.1	10.2
BLACK BEAR PILLOW	7950	4/01/98	---	37.5	70.0	38.5
BLACK MOUNTAIN	7750	3/27/98	52	15.8	19.7	16.3
BLACK PINE PILLOW	7100	4/01/98	---	8.3	18.0	12.7
BLACKTAIL	5650	3/31/98	27	8.0	26.9	14.2
BLOODY DICK PILLOW	7550	4/01/98	---	10.2	19.7	12.6
BLUE LAKE	5900	3/31/98	36	11.8	30.1	25.3
BOTS SOTS	7750	3/31/98	22	8.7	13.0	8.2
BOULDER MTN PILLOW	7950	4/01/98	---	16.1	27.1	20.6
BOX CANYON PILLOW	6700	4/01/98	---	8.2	15.6	10.3
BOXELDER CREEK	5100	3/30/98	22	6.0	8.2	8.3
BRACKETT CR PILLOW	7320	4/01/98	---	18.1	34.3	21.2
BRANHAM LAKES	8850	3/24/98	63	21.6	41.0	30.2
BRISTOW CREEK	3900	3/31/98	14	5.7	17.4	9.4
BRUSH CREEK TIMBER	5000	3/30/98	12	3.1	12.4	9.5
BULL MOUNTAIN	6600	3/25/98	12	2.9	9.8	6.4
CABIN CREEK	5200	3/25/98	9	2.9	7.8	6.2
CALL ROAD	8050	4/03/98	31	11.0	14.6	12.4
CALVERT CR PILLOW	6430	4/01/98	---	7.3	16.4	8.9
CAMP MISERY	6400	3/29/98	107	40.9	80.8	49.0
CAMP SENIA	7890	3/31/98	23	6.7	10.2	6.6

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1961-90
CARROT BASIN PILLOW	9000	4/01/98	---	25.5	41.0	28.3
CARTER CREEK	7400	3/30/98	29	7.5	8.8	5.9
CEDAR GROVE	3760	3/26/98	20	5.9	24.8	12.2
CHESSMAN RESERVOIR	6200	3/26/98	5	1.5	3.3	3.9
CHICKEN CREEK	4060	3/31/98	29	10.7	27.4	14.0
CLOVER MDW PILLOW	8800	4/01/98	---	17.3	21.7	18.6
COLE CREEK PILLOW	7850	4/01/98	---	13.3	16.3	17.3
COLLEY CREEK	6300	3/30/98	21	6.0	12.8	8.9
COMBINATION PILLOW	5600	4/01/98	---	3.0	7.0	5.8
COPPER BOTTOM PILLOW	5200	4/01/98	---	5.7	19.3	11.7
COPPER CAMP PILLOW	6950	4/01/98	---	17.8	45.0	34.9
COPPER CREEK	5700	4/01/98	16	6.4	19.9	14.2
COPPER MOUNTAIN	7700	3/27/98	35	10.0	17.1	11.4
COTTONWOOD CREEK	6400	3/27/98	27	7.7	13.0	8.8
COYOTE HILL	4200	3/30/98	19	6.3	19.0	9.5
CREVICE MOUNTAIN	8400	3/28/98	37	9.3	15.8	10.9
CRYSTAL LAKE PILLOW	6050	4/01/98	---	8.0	14.7	12.8
DAD CREEK LAKE	8400	4/03/98	48	14.6	17.0	15.1
DAISY PEAK *	7600	3/31/98	29	7.2	12.3	10.6
DAISY PEAK	7600	3/31/98	29	7.2	12.3	10.6
DALY CREEK PILLOW	5780	4/01/98	---	9.6	19.0	11.9
DARKHORSE LK. PILLOW	8700	4/01/98	---	24.1	43.6	33.7
DAVIS CREEK	5400	4/01/98	50	20.3	36.7	24.3
DEADMAN CR PILLOW	6450	4/01/98	---	9.1	15.1	10.2
DEADMAN CREEK	6450	4/02/98	25	9.2	14.6	11.3
DESERT MOUNTAIN	5600	4/01/98	29	10.6	23.7	15.5
DISCOVERY BASIN	7050	3/30/98	32	10.2	16.8	11.3
DIVIDE PILLOW	7800	4/01/98	---	9.6	14.6	11.3
DIX HILL	6400	3/29/98	24	8.0	14.0	11.3
DUPUYER CREEK PILLOW	5750	4/01/98	---	3.9	12.6	12.9
EAGLE CREEK	7000	4/01/98	30	10.5	24.6	14.4
EAST FORK R.S.	5400	3/26/98	14	3.2	10.4	5.6
EL DORADO MINE	7800	3/28/98	56	19.4	25.6	21.6
ELK HORN SPRINGS	7800	4/01/98	---	7.5E	13.6	9.3
ELK PEAK	8000	3/29/98	48	11.4	22.8	17.3
EMERY CREEK PILLOW	4350	4/01/98	---	10.1	24.7	16.3
FATTY CREEK	5500	3/30/98	51	17.6	44.5	24.3
FISH CREEK	8000	3/24/98	34	9.8	13.3	9.9
FISHER CREEK PILLOW	9100	4/01/98	---	29.3	56.0	36.1
FIVE-BULL	5700	3/31/98	9	3.1	10.1	6.3
FLATTOP MTN PILLOW	6300	4/01/98	---	37.5	65.7	47.1
FLEECER RIDGE	7500	3/25/98	24	7.3	17.5	11.3
FOOLHEN	8280	4/02/98	48	15.2	23.4	17.1
FOREST LAKE	6400	4/01/98	27	9.0	19.5	12.6
FOUR MILE	6900	3/25/98	18	5.6	11.0	8.9
FOURTH OF JULY	3450	3/26/98	16	5.5	15.2	7.4
FRED BURR PASS	8000	3/30/98	69	22.8	32.2	25.4
FREIGHT CREEK	6000	3/31/98	20	5.7	18.8	15.5
FROHNER MDWS PILLOW	6480	4/01/98	---	6.5	9.5	8.7
GARVER CREEK PILLOW	4250	4/01/98	---	8.7	18.2	10.1

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1961-90
GARVER CREEK	4250	3/27/98	22	7.3	19.2	10.2
GIBBONS PASS	7100	3/26/98	47	17.0	31.6	23.2
GOAT MOUNTAIN	7000	3/26/98	17	4.2	14.3	10.5
GOLD CREEK LAKE	7200	3/28/98	36	11.6	20.4	15.9
GOLD STONE	8100	4/03/98	45	14.3	22.6	17.4
GRASSHOPPER	7000	3/29/98	26	5.6	9.3	6.2
GRAVE CRK PILLOW	4300	4/01/98	---	12.8	24.7	16.7
GRIFFIN CR DIVIDE	5150	3/31/98	16	5.0	17.2	11.2
GUNSIGHT LAKE	6300	3/31/98	72	27.8	52.4	40.0
HAND CREEK PILLOW	5030	4/01/98	---	8.3	20.5	13.3
HAWKINS LAKE PILLOW	6450	4/01/98	---	17.8	33.8	29.0
HAYMAKER	8050	3/31/98	46	10.2	15.2	12.7
HEART LAKE TRAIL	4800	3/30/98	45	15.4	33.6	21.6
HEBGEN DAM	6550	4/02/98	29	11.0	15.7	12.1
HELL ROARING DIVIDE	5770	3/28/98	60	21.2	40.2	31.0
HERRIG JUNCTION	4850	3/31/98	52	20.7	39.2	26.0
HOLEBROOK	4530	3/30/98	14	5.0	16.9	9.0
HOODOO BASIN	6050	3/30/98	88	34.4	69.5	51.0
HOODOO BASIN PILLOW	6050	4/01/98	---	30.8	70.7	47.0
INDEPENDENCE	7850	3/27/98	47	13.4	24.5	18.3
INTERGAARD	6450	3/26/98	22	7.1	12.1	8.6
JAHNKE LAKE TRAIL	7200	4/02/98	26	8.6	13.6	10.0
JOHNSON PARK	6450	3/31/98	10	3.4	7.2	6.9
KEELER CREEK	3300	3/31/98	27	9.6	30.4	10.8
KINGS HILL	7500	4/01/98	34	9.2	16.4	14.5
KISHENNEHN	3890	3/27/98	20	6.6	14.5	7.0
KIWANIS CAMP	3720	3/30/98	0	.0	.0	.8
KRAFT CREEK PILLOW	4750	4/01/98	---	8.5	28.7	15.3
LAKE CREEK	6100	4/01/98	---	8.7E	10.6	8.5
LAKEVIEW CANYON	6930	3/31/98	30	9.4	12.6	12.3
LAKEVIEW RDG. PILLOW	7400	4/01/98	---	11.1	13.7	13.0
LEMHI RIDGE PILLOW	8100	4/01/98	---	10.4	14.5	11.1
LICK CREEK PILLOW	6860	4/01/98	---	10.6	16.5	14.4
LICK CREEK	6860	3/26/98	27	9.0	--	10.7
LITTLE PARK	7400	3/26/98	40	12.4	23.0	16.3
LOGAN CREEK	4300	3/30/98	14	3.8	11.2	7.1
LONE MOUNTAIN PILLOW	8880	4/01/98	---	16.9	27.9	19.2
LOST HORSE	5940	3/28/98	53	17.6	43.6	32.3
LOST SOUL	4800	3/31/98	24	9.4	23.4	15.3
LOWER TWIN PILLOW	7900	4/01/98	---	14.7	24.4	18.6
LUBRECHT PILLOW	4680	4/01/98	---	2.8	7.7	5.1
LUBRECHT FOREST NO 3	5450	4/01/98	10	2.8	10.4	6.8
LUBRECHT FOREST NO 4	4650	4/01/98	0	.0	4.1	2.1
LUBRECHT FOREST NO 6	4040	3/31/98	0	.0	6.4	2.3
LUBRECHT HYDROPLOT	4200	3/31/98	0	.0	8.5	4.2
MADISON PLT PILLOW	7750	4/01/98	---	21.0	42.0	24.8
MANY GLACIER PILLOW	4900	4/01/98	---	12.1	23.7	16.6
MARIAS PASS	5250	3/27/98	32	11.4	30.0	17.4
MAYNARD CREEK	6210	3/27/98	31	10.0	23.8	15.1
MIDDLE MILL CREEK	7850	3/24/98	34	10.6	20.6	16.6

SNOW COURSE	EL E V A T I O N	D A T E	S N O W D E P T H	W A T E R C O N T E N T	L A S T Y E A R	A V E R A G E 1 9 6 1 - 9 0
MILL CREEK	7500	3/30/98	36	11.8	20.0	13.7
MINERAL CREEK	4000	3/28/98	41	15.5	30.6	17.5
MONUMENT PK PILLOW	8850	4/01/98	---	19.3	33.2	21.4
MOSS PEAK PILLOW	6780	4/01/98	---	29.6	64.1	38.4
MT LOCKHART PILLOW	6400	4/01/98	---	15.0	29.7	21.5
MUDI LAKE	7650	3/26/98	48	15.2	28.3	20.0
MULE CREEK PILLOW	8300	4/01/98	---	13.5	22.8	16.2
NEVADA CREEK PILLOW	6480	4/01/98	---	10.1	21.2	13.4
NEVADA RIDGE PILLOW	7020	4/01/98	---	11.1	20.4	15.3
NEW WORLD	6900	3/27/98	40	12.7	21.6	15.7
NEWTON MOUNTAIN	5600	3/26/98	69	27.1	48.1	35.6
NEZ PERCE CMP PILLOW	5650	4/01/98	---	11.1	23.7	15.1
NEZ PERCE CREEK	6600	3/27/98	16	5.0	11.0	7.1
NEZ PERCE PASS	6570	3/27/98	36	13.2	23.6	19.2
NOISY BASIN PILLOW	6040	4/01/98	---	36.0	71.1	40.7
N.F. ELK CR PILLOW	6250	4/01/98	---	8.8	17.8	13.2
NF JOCKO PILLOW	6330	4/01/98	---	33.6	67.6	46.7
N.E. ENTRANCE PILLOW	7350	4/01/98	---	6.9	12.0	9.2
NOTCH	8500	4/03/98	59	19.6	18.6	16.4
OPHIR PARK	7150	3/29/98	37	11.6	21.4	18.0
PALISADE CREEK	8250	3/26/98	74	26.4	42.3	29.9
PETERSON MEADOWS	7200	3/31/98	32	9.6	14.2	10.8
PICKET PIN LOWER	6200	3/25/98	0	.0	2.8	3.0
PICKET PIN MIDDLE	7250	3/25/98	18	6.6	12.6	13.4
PICKET PIN UPPER	8100	3/25/98	44	13.6	24.8	20.9
PICKFOOT CRK PILLOW	6650	4/01/98	---	7.6	15.3	11.0
PIKE CREEK PILLOW	5930	4/01/98	---	17.9	42.2	27.9
PIPESTONE PASS	7200	3/26/98	16	5.0	8.0	5.9
PLACER BASIN PILLOW	8830	4/01/98	---	14.6	24.8	19.1
POORMAN CREEK	5100	3/26/98	58	22.1	43.9	34.4
PORCUPINE PILLOW	6500	4/01/98	---	5.8	12.0	7.4
POTOMAGEON PARK	7150	4/02/98	30	11.5	19.3	14.6
RED MOUNTAIN	6000	3/31/98	38	13.7	28.6	18.9
RED TOP	5260	3/26/98	58	23.2	41.3	29.0
REVAIS CREEK	4800	3/30/98	0	.0	3.1	2.1
ROCK CREEK	5600	3/26/98	23	6.4	9.2	10.6
ROCK CREEK MEADOW	8160	3/30/98	61	19.9	31.2	22.0
ROCKER PEAK PILLOW	8000	4/01/98	---	13.3	18.0	15.3
ROCKY BOY PILLOW	4700	4/01/98	---	2.9	2.7	4.9
ROCKY BOY	4700	3/30/98	3	1.0	.9	4.4
SACAJAWEA	6550	3/26/98	32	11.1	24.3	14.6
SADDLE MTN PILLOW	7900	4/01/98	---	20.4	39.2	26.1
SHORT CREEK PILLOW	7000	4/01/98	---	5.8	7.2	6.3
SHOWER FALLS PILLOW	8100	4/01/98	---	20.1	31.7	23.8
SILVER RUN PILLOW	6630	4/01/98	---	3.4	5.8	6.8
SKALKHAO PILLOW	7260	4/01/98	---	20.4	39.5	24.9
SLAG-A-MELT LAKE	8750	4/02/98	58	19.9	38.6	25.8
SLIDE ROCK MOUNTAIN	7100	3/28/98	34	11.2	20.5	16.7
SMUGGLER MINE	6960	3/24/98	25	7.5	12.3	10.5
S.F. SHIELDS PILLOW	8100	4/01/98	---	14.9	30.0	17.9

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1961-90
SPOTTED BEAR MTN.	7000	3/31/98	21	7.3	22.4	14.9
SPUR PARK PILLOW	8100	4/01/98	---	17.8	27.8	22.2
SQUAW PEAK PILLOW	6150	4/01/98	---	11.5	29.7	15.6
STAHL PEAK PILLOW	6030	4/01/98	---	33.1	49.2	35.1
STAHL PEAK	6030	3/27/98	97	37.8	--	39.7
STEMPLE PASS	6600	3/27/98	19	5.4	13.8	10.6
STORM LAKE	7780	3/31/98	45	12.7	18.3	14.0
STRYKER BASIN	6180	3/31/98	74	27.4	44.5	34.6
STUART MOUNTAIN	7400	3/30/98	66	25.2	50.9	32.9
STUART MOUNTAIN PILLOW	7400	4/01/98	---	24.4	47.8	30.9
SUCKER CREEK	3960	3/30/98	0	.0	.0	.4
TAYLOR ROAD	4080	3/30/98	0	.0	.2	2.2
TEN MILE LOWER	6600	3/26/98	16	4.2	8.7	7.8
TEN MILE MIDDLE	6800	3/26/98	27	7.2	13.8	12.2
TEPEE CREEK PILLOW	8000	4/01/98	---	14.1	18.8	13.4
TIMBERLINE CREEK	8850	3/31/98	45	10.6	23.3	14.8
TIZER BASIN PILLOW	6840	4/01/98	---	9.9	11.8	12.0
TRAIL CREEK	7090	4/03/98	24	7.4	9.0	8.7
TRINKUS LAKE	6100	3/31/98	75	30.6	67.9	43.4
TRUMAN CREEK	4060	3/29/98	8	2.3	9.0	3.5
TV MOUNTAIN	6800	3/30/98	39	13.3	29.6	19.2
TWELVEMILE PILLOW	5600	4/01/98	---	12.7	31.9	18.6
TWENTY-ONE MILE	7150	3/27/98	40	12.7	24.2	17.4
TWIN CREEKS	3580	3/31/98	13	4.9	21.3	10.3
TWIN LAKES PILLOW	6400	4/01/98	---	31.6	65.9	40.4
UPPER HOLLAND LAKE	6200	3/31/98	66	27.2	53.0	35.4
WALDRON PILLOW	5600	4/01/98	---	7.5	17.4	11.3
WARM SPRINGS PILLOW	7800	4/01/98	---	20.5	31.2	22.3
WEASEL DIVIDE	5450	3/27/98	74	26.4	41.0	33.8
WEST YELLOWSTONE	6700	3/27/98	26	8.2	17.3	11.6
WHISKEY CREEK PILLOW	6800	4/01/98	---	14.4	25.6	17.5
WHITE MILL PILLOW	8700	4/01/98	---	23.4	38.2	25.1
WHITE PINE RIDGE	8850	4/03/98	26	7.6	6.8	5.8
WILLOW CREEK	6500	3/26/98	19	6.0	9.8	9.5
WOOD CREEK PILLOW	5960	4/01/98	---	6.5	15.7	12.2
WRONG CREEK	5700	3/24/98	19	5.4	19.7	13.6
WRONG RIDGE	6800	3/24/98	32	10.1	25.7	19.4



Montana Water Supply Outlook Report as of April 1, 1998

March started off with snow and cool temperatures. By the middle of the month, temperatures warmed into the fifties with average daily temperatures in the mid to upper thirties. There were several days where the lows remained above freezing and low to mid elevation mountain snowpack began to melt. With the warm temperatures, most of the low to mid elevation snowpack has warmed enough so that when temperatures remain above freezing there again will be melting of the mountain snowpack. During the last week of March, most areas again picked up some snow and the average daily temperatures stayed below freezing, stopping mountain snowpack melt. West of the Divide, average temperature departures ranged from 1 to 3 degrees above average and east of the Divide temperature departures ranged from 1 to 5 degrees below average.

Snowpack

Storms that brought snow to the mountains and valleys across the state were highly variable. The northwest, southwest, and southcentral areas saw the most increases, while the central and northcentral saw the least increases. Lack of storms and warm temperatures has put the Flathead River Basin the lowest of record, 1961 through 1997, Sun-Teton-Marias River Basins tied with the lowest years of record, and several other basins are among the five lowest years of record.

By this time of year, most areas are at or near their winter snowpack peak, with the exception of the Madison, Gallatin and Yellowstone basins where the snowpack peak usually occurs around the first of May. The low and mid elevation mountain snowpack has begun melting and will continue to do so when average daily air temperatures remain above freezing.

As of April 1, mountain snow water content was 74 percent of average and 52 percent of last year. West of the Continental Divide, snow water content was 73 percent of average and 50 percent of last year. East of the Continental Divide, snow water content was 80 percent of average and 59 percent of last year.

RIVER BASIN	% OF AVERAGE	% OF LAST YEAR
COLUMBIA	73	50
KOOTENAI	74	49
FLATHEAD	71	47 #
UPPER CLARK FORK	73	53 ###
BITTERROOT	72	47
LOWER CLARK FORK	69	46 ###
MISSOURI	76	56
MISSOURI HEADWATERS	82	59
JEFFERSON	81	60
MADISON	88	60
GALLATIN	81	57
MISSOURI MAINSTEM	62	50
HEADWATERS MAINSTEM	71	58 ###
SMITH-JUDITH-MUSSELSHELL	70	55 ###
SUN-TETON-MARIAS	54	40 ##
MILK (BEARPAW MTNS.)	47	82
ST. MARY	80	54
ST. MARY and MILK	73	57
YELLOWSTONE	87	63
UPPER YELLOWSTONE	82	56
LOWER YELLOWSTONE (WYOMING)	94	72
WIND	98	70
SHOSHONE	91	61
BIGHORN	94	70
TONGUE	90	81
POWDER	93	79

- Basin snow water average is the lowest of record, 1961-1997.

- Basin snow water average is tied with the lowest of record,
1961-1997.

###- Basin snow water average is ranked in the lowest five of record.

Precipitation

March mountain and valley precipitation, across the state, was 91 percent of average and 76 percent of last year, while water year precipitation was 84 percent of average and 60 percent above last year.

West of the Continental Divide, March mountain and valley precipitation was 92 percent of average and 60 percent of last year and water year precipitation was 81 percent of average and 56 percent of last year. East of the Continental Divide, March mountain and valley precipitation was 91 percent of average and 92 percent of last year and water year precipitation was 86 percent of average and 64 percent of last year.

Combined mountain and valley precipitation are as follows:

RIVER BASIN	MARCH % OF AVERAGE	WATER YEAR % OF AVERAGE
COLUMBIA	92	60
KOOTENAI	97	85
FLATHEAD	105	81
UPPER CLARK FORK	82	80
BITTERROOT	77	85
LOWER CLARK FORK	85	78
MISSOURI	90	85
JEFFERSON	84	91
MADISON	95	92
GALLATIN	89	86
MISSOURI MAINSTEM	73	81
SMITH-JUDITH-MUSSELSHELL	109	79
SUN-TETON-MARIAS	76	69
MILK	131	81
ST. MARY	102	79
YELLOWSTONE	100	95
UPPER YELLOWSTONE	88	89
LOWER YELLOWSTONE	116	103
WIND	144	130
SHOSHONE	121	106
BIGHORN	96	97
TONGUE	66	101
POWDER	98	111

Reservoirs

Major reservoir storage across the state was 118 percent of average and 110 percent of last year.

West of the Continental Divide, reservoirs were 123 percent of average and 108 percent of last year. East of the Continental Divide, reservoirs were 104 percent of average and 96 percent of last year.

RIVER BASIN	% OF AVERAGE	% OF LAST YEAR
COLUMBIA	123	108
KOOTENAI	145	94
FLATHEAD	105	127
UPPER CLARK FORK	119	115
BITTERROOT	96	98
LOWER CLARK FORK	141	108
MISSOURI	113	116
JEFFERSON	118	112
MADISON	104	111
GALLATIN	193	110
MISSOURI MAINSTEM	110	132
SMITH-JUDITH-MUSSELSHELL	134	125
SUN-TETON-MARIAS	121	101
MILK	105	86
ST. MARY	92	72
YELLOWSTONE	105	111
UPPER YELLOWSTONE	119	122
LOWER YELLOWSTONE	104	111

Streamflow

Streamflow forecasts across Montana were 73 percent of average and 52 percent of last years forecasts. Due to the warm winter, below to well below average snowpacks, and early warming of the snowpack, it is anticipated that streamflow peaks will occur earlier than average and the flows during the peak will generally be below to well below average. It is also anticipated that without timely rains in May and June, water shortages could occur during mid to late summer, especially in areas without reservoir storage.

West of the Continental Divide, streamflows are forecast to be 73 percent of average and 51 percent of last years forecasts. East of the Continental Divide, streamflows are forecast to be 73 percent of average and 52 percent of last years forecasts.

FORECASTS RIVER BASIN	FORECASTS % OF AVERAGE	% OF LAST YEAR
COLUMBIA	73	51
KOOTENAI	79	65
FLATHEAD	74	52
UPPER CLARK FORK	65	43
BITTERROOT	73	49
LOWER CLARK FORK	73	47
MISSOURI	75	52
JEFFERSON	84	54
MADISON	87	59
GALLATIN	87	58
MISSOURI MAINSTEM	76	48
SMITH-JUDITH-MUSSELSHELL	73	55
SUN-TETON-MARIAS	62	45
MILK	56	42
ST. MARY	78	61
YELLOWSTONE	84	54
UPPER YELLOWSTONE	82	54
LOWER YELLOWSTONE	87	55

NOTE: The FORECAST AS % OF LAST YEAR column above, is this years forecast as a percent of last years forecast, not of what actually occurred.

Surface Water Supply Index

The Surface Water Supply Index (SWSI) is an indicator of surface water supply conditions for the spring and summer months. Water users that rely on mountain precipitation can use the index to evaluate seasonal surface water supplies. The SWSI accounts for mountain snowpack, mountain precipitation, streamflow, reservoir storage, and soil moisture.

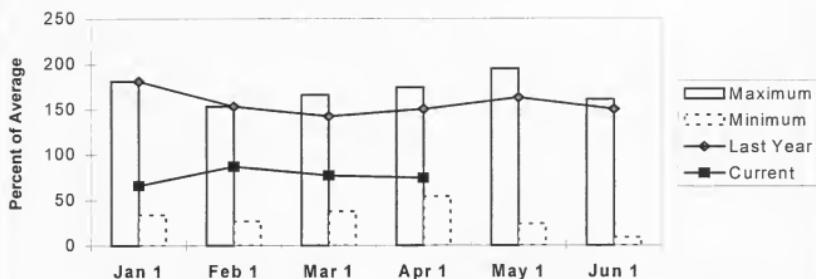
SWSI RATING	SURFACE WATER CONDITION
+3.0 to +4.0	Extremely Wet
+2.0 to +3.0	Moderately Wet
+1.0 to +2.0	Slightly Wet
-1.0 to +1.0	Near Average
-1.0 to -2.0	Slightly Dry
-2.0 to -3.0	Moderately Dry
-3.0 to -4.0	Extremely Dry

SWSI	Basin
-1.7	Kootenai River at Ft. Steele (Kootenai in Canada)
-1.3	Tobacco River
-1.4	Kootenai Ft. Steele to Libby Dam
+0.4	Kootenai River below Libby Dam
-2.9	Fisher River
-2.5	Yaak River
-2.3	North Fork Flathead River
-2.9	Middle FORK Flathead River
-1.6	South Fork Flathead River
-2.3	Flathead River at Columbia Falls
-2.4	Stillwater/Whitefish Rivers
-2.7	Swan River
-2.5	Flathead River at Polson
-2.7	Mission Valley
-2.6	Little Bitterroot River
-2.4	Clark Fork River above Rock Creek
-2.8	Blackfoot River
-2.6	Clark Fork River above Missoula
-2.1	Bitterroot River
-2.5	Clark Fork River below Bitterroot River
-2.5	Clark Fork River below Flathead River
+0.2	Beaverhead River
-0.8	Ruby River
-1.9	Big Hole River
-2.7	Boulder River (Jefferson)
-1.4	Jefferson River
+0.1	Madison River
-1.4	Gallatin River
-0.9	Missouri River above Canyon Ferry
-0.3	Missouri River below Canyon Ferry
-2.2	Smith River
-2.9	Sun River
-3.4	Teton River
-2.4	Birch/Dupuyer Creeks
-2.9	Marias River
-1.6	Musselshell River
-0.2	Missouri River above Ft. Peck
0.0	Missouri River below Ft. Peck
-2.8	Milk River
-1.4	Yellowstone River above Livingston
-1.8	Shields River
-1.8	Boulder River (Yellowstone)
-2.2	Stillwater River
-1.7	Rock/Red Lodge Creeks
-1.9	Clark Fork River
-1.6	Yellowstone River above Bighorn River
+0.9	Bighorn River below Bighorn Lake
-0.9	Little Bighorn River
-0.4	Yellowstone River below Bighorn River
-1.5	Tongue River
-0.6	Powder River

Kootenai River Basin in Montana

Snowpack conditions for the Kootenai River Basin in Montana were below average and sixth lowest of record for the period 1961-1997. Snow water content was 26 percent below average and 51 percent below last year. Snowpack conditions for the Kootenai River Basin in Canada were below average. Snow water content was 20 percent below average and 36 percent below last year.

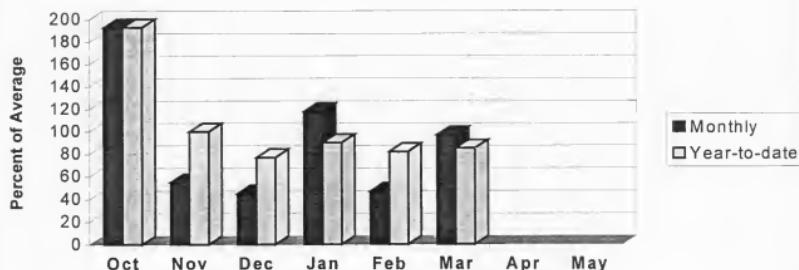
Kootenai Snow Water Equivalent



January maximum swe was established in 1997 and minimum was in 1977; February maximum swe was in 1997 and minimum swe was in 1977; March maximum swe was in 1972 and minimum swe was in 1977; April maximum swe was in 1974 and minimum swe was in 1977; May maximum swe was in 1974 and minimum swe was in 1977; and June maximum swe was in 1974 and minimum swe was in 1992. Average is for the period 1961 through 1990.

Mountain precipitation during March was 3 percent below average and 51 percent below last year. Valley precipitation during March was 26 percent below average and 40 percent below last year. Mountain and valley water year precipitation, beginning October 1, 1997, was 15 percent below average and 42 percent below last year.

Kootenai Precipitation



Lake Koocanusa storage, on the last day of March, was 45 percent above average and 6 percent below last year.

Streamflows, for the period April through July, are forecast to be 21 percent below average and 35 percent below last years forecasts. Basin forecast range from 38 percent below average to 18 percent below average.

Surface Water Supply Index (SWSI) was -178 in the Kootenai River at Ft. Steele (Kootenai in Canada); -1.3 in the Tobacco River; -1.4 in the Kootenai Ft. Steele to Libby Dam; +0.4 in the Kootenai River below Libby Dam; -2.9 in the Fisher River; and -2.5 in the Yaak River.

KOOTENAI RIVER BASIN in Montana
Streamflow Forecasts - April 1, 1998

Forecast Point	Forecast Period	<===== Drier ===== Future Conditions ===== Wetter =====>				30-Yr Avg. (1000AF)		
		Chance Of Exceeding *		30% (1000AF) 10% (1000AF)				
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF) (% AVG.)	30% (1000AF) 10% (1000AF)			
TOBACCO RIVER nr Eureka	APR-JUL	70	86	97	73	108	124	133
	APR-SEP	77	95	108	74	121	139	147
LIBBY RES Inflow (1,2)	APR-JUL	3602	4364	4710	82	5056	5818	5779
	APR-SEP	4220	5114	5520	82	5926	6820	6772
FISHER RIVER near Libby	APR-JUL	128	144	155	66	166	182	234
	APR-SEP	137	154	165	66	176	193	250
YAAK RIVER near Troy	APR-JUL	252	281	300	62	319	348	483
	APR-SEP	266	295	315	62	335	364	505
KOOTENAI at Leonia (1,2)	APR-JUL	4315	5261	5690	79	6119	7065	7199
	APR-SEP	4960	6047	6540	79	7033	8120	8275

KOOTENAI RIVER BASIN in Montana
Reservoir Storage (1000 AF) - End of March

KOOTENAI RIVER BASIN in Montana
Watershed Snowpack Analysis - April 1, 1998

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of Last Yr Average	
		This Year	Last Year	Avg				
LAKE KOCANUSA	5748.0	3102.0	3292.0	2141.0	KOOTENAY in CANADA	25	64	79
					KOOTENAI MAINTSTEM	8	44	72
					TOBACCO	3	63	84
					FISHER	5	45	66
					YAAK	8	51	75
					KOOTENAI in MONTANA	23	49	74
					ab BONNERS FERRY	48	55	76

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

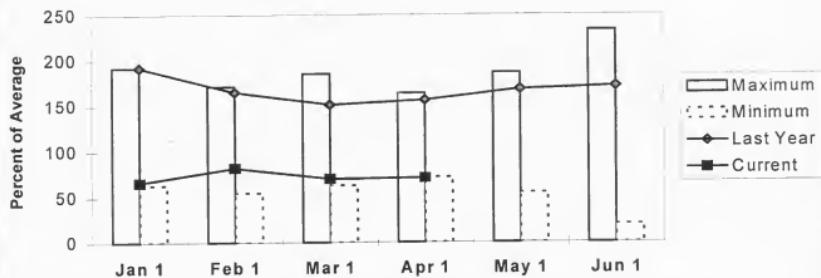
(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

(2) - The value is natural volume - actual volume may be affected by upstream water management.

Flathead River Basin

Snowpack conditions for the Flathead River Basin in Montana were well below average and the lowest of record, for the period 1961-1997. Snow water content was 29 percent below average and 53 percent below last year. Snowpack conditions for the North Fork Flathead River Basin in Canada were below average. Snow water content was 22 percent below average and 43 percent below last year.

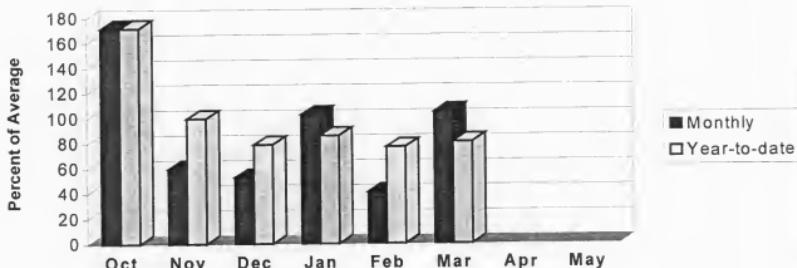
Flathead Snow Water Equivalent



January maximum SWE was established in 1997 and minimum was in 1988; February maximum SWE was in 1972 and minimum was in 1977; March maximum SWE was in 1972 and minimum was in 1977; April maximum SWE was in 1972 and minimum was in 1992; May maximum SWE was in 1972 and minimum was in 1992; and June maximum SWE was in 1974 and minimum was in 1992. Average is for the period 1961 through 1990.

Mountain precipitation during March was 2 percent above average and 37 percent below last year. Valley precipitation during March was 46 percent above average and 19 percent above last year. Mountain and valley water year precipitation, beginning October 1, 1997, was 19 percent below average and 45 percent below last year.

Flathead Precipitation



Reservoir storage, on the last day of March, was 5 percent above average and 27 percent above last year. Combined Camas reservoir storage was 52 percent above average and 10 percent below last year; the combined Mission Valley reservoir storage was 5 percent below average and 15 percent above last year; Hungry Horse storage was 14 percent above average and 63 percent above last year; and Flathead Lake storage was 20 percent below average and 31 percent below last year.

Streamflows, for the period April through July, are forecast to be 26 percent below average and 48 percent below last years forecasts. Basin forecasts range from 28 percent below average to 26 percent below average.

Surface Water Supply Index (SWSI) was -2.3 in the North Fork Flathead River; -2.9 in the Middle Fork Flathead River; -1.6 in the South Fork Flathead River; -2.3 in the Flathead River at Columbia Falls; -2.4 in the Stillwater/Whitefish Rivers; -2.7 in the Swan River; -2.5 in the Flathead River at Polson; -2.7 in the Mission Valley; and -2.6 in the Little Bitterroot River.

FLATHEAD RIVER BASIN
Streamflow Forecasts - April 1, 1998

Forecast Point	Forecast Period	Future Conditions						Wetter	30-Yr Avg.		
		<< Drier >>		Chance Of Exceeding *		Wetter					
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	% AVG.)	30% (1000AF)	10% (1000AF)				
NF FLATHEAD nr Columbia Falls	APR-JUL	1027	1130	1200	72	1270	1373	1662			
	APR-SEP	1134	1251	1330	72	1409	1526	1836			
MF FLATHEAD nr West Glacier	APR-JUL	1037	1140	1210	74	1280	1383	1638			
	APR-SEP	1123	1240	1320	74	1400	1517	1788			
HUNGRY HORSE Reservoir Inflow (1,2)	APR-JUL	1229	1422	1510	74	1598	1791	2051			
	APR-SEP	1313	1524	1620	74	1716	1927	2184			
FLATHEAD at Columbia Falls (2)	APR-JUL	3501	3828	4050	74	4272	4599	5482			
	APR-SEP	3783	4150	4400	74	4650	5017	5960			
STILLWATER nr Whitefish	APR-JUL	96	122	140	74	158	184	189			
	APR-SEP	102	134	155	74	176	208	209			
WHITEFISH nr Kalispell	APR-JUL	55	67	75	72	83	95	104			
	APR-SEP	59	73	83	72	93	107	116			
SWAN RIVER near Bigfork	APR-JUL	354	396	425	73	454	496	583			
	APR-SEP	400	451	485	73	519	570	665			
FLATHEAD Lake Inflow (1,2)	APR-JUL	3722	4395	4700	74	5005	5678	6390			
	APR-SEP	3965	4746	5100	74	5454	6235	6926			

FLATHEAD RIVER BASIN Reservoir Storage (1000 AF) - End of March					FLATHEAD RIVER BASIN Watershed Snowpack Analysis - April 1, 1998				
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of		
		This Year	Last Year	Avg			Last Yr	Average	
CAMAS (4)	45.2	36.1	40.3	23.7	NF FLATHEAD in CANADA	3	57	78	
MISSION VALLEY (8)	100.0	38.7	33.6	40.9	NF FLATHEAD in MT.	9	57	81	
HUNGRY HORSE	3451.0	2324.0	1426.0	2046.0	MIDDLE FORK FLATHEAD	7	49	69	
FLATHEAD LAKE	1791.0	603.1	870.2	751.9	SOUTH FORK FLATHEAD	9	46	73	
					STILLWATER-WHITEFISH	10	45	67	
					SWAN	9	48	76	
					MISSION VALLEY	5	45	73	
					LITTLE BITTERROOT-ASHLEY	6	28	50	
					JOCKO	5	47	72	
					FLATHEAD in MONTANA	43	47	72	
					FLATHEAD BASIN	46	48	73	

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

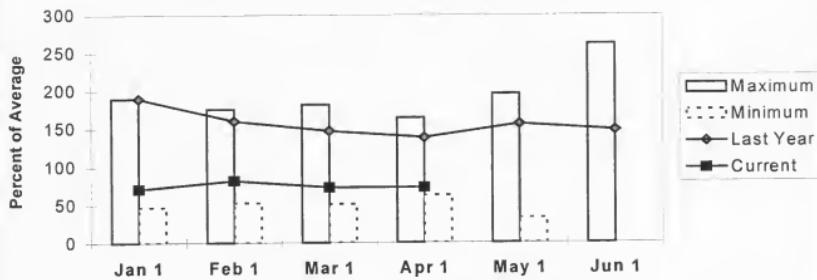
The average is computed for the 1961-1990 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
 (2) - The value is natural volume - actual volume may be affected by upstream water management.

Upper Clark Fork River Basin

Snowpack conditions in the Upper Clark Fork River Basin were below average and third lowest of record, for the period 1961-1997. Snow water content was 27 percent above average and 47 percent below last year.

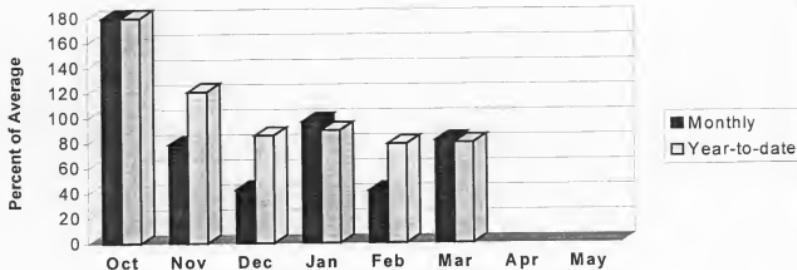
Upper Clark Fork Snow Water Equivalent



January maximum swe was established in 1997 and minimum swe was in 1977; February maximum was in 1972 and minimum swe was in 1977; March maximum swe was in 1972 and minimum swe was in 1977; April maximum swc was in 1972 and minimum was in 1994; May maximum swe was in 1972 and minimum swe was in 1977; and June maximum swe was in 1975 and minimum swe was in 1987. Average is for the period 1961 through 1990.

Mountain precipitation during March was 19 percent below average and 35 percent below last year. Valley precipitation during March was 7 percent below average and 6 percent below last year. Mountain and valley water year precipitation, beginning October 1, 1997, was 20 percent below average and 42 percent below last year.

Upper Clark Fork Precipitation



Reservoir storage, on the last day of March, was 19 percent above average and 15 percent above last year. Georgetown Lake storage was 11 percent above average and 5 percent above last year; Lower Willow Creek storage was 43 percent above average and 106 percent above last year; and Nevada Creek storage was 38 percent above average and 33 percent above last year.

Streamflows, for the period April through July, are forecast to be 35 percent below average and 57 percent below last years forecasts. Basin forecasts range from 48 percent below average to 10 percent below average.

Surface Water Supply Index (SWSI) was -2.4 in the Clark Fork River above Rock Creek; -2.8 in the Blackfoot River; and -2.6 in the Clark Fork River above Missoula.

UPPER CLARK FORK RIVER BASIN
Streamflow Forecasts - April 1, 1998

Forecast Point	Forecast Period	Drier				Future Conditions			Wetter			30-Yr Avg. (1000AF)	
		Chance Of Exceeding *		50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)		10% (1000AF)					
		90% (1000AF)	70% (1000AF)			(1000AF)	(1000AF)	(1000AF)	(1000AF)	(1000AF)	(1000AF)		
WARM SPRINGS CK at Anaconda (2)	APR-JUL	23	30	34	90	38	45	38					
	APR-SEP	30	37	42	89	47	55	47					
LITTLE BLACKFOOT nr Garrison	APR-JUL	14.1	40	58	70	76	102	83					
	APR-SEP	13.8	43	62	70	82	110	89					
FLINT CK nr Southern Cross (2)	APR-JUL	4.7	8.2	10.6	75	13.0	16.5	14.2					
	APR-SEP	5.0	9.4	12.4	74	15.4	19.8	16.7					
FLINT CK b1 Boulder Ck	APR-JUL	21	33	42	74	51	63	57					
	APR-SEP	28	43	54	74	65	80	73					
LOWER WILLOW CK RES Inflow	APR-JUL	2.3	5.7	8.0	57	10.3	13.7	14.0					
	APR-SEP	2.6	6.1	8.5	57	10.9	14.4	14.8					
MF ROCK CREEK nr Philipsburg	APR-JUL	36	44	50	76	56	64	66					
	APR-SEP	39	49	55	74	61	71	74					
ROCK CREEK near Clinton	APR-JUL	139	181	210	71	239	281	296					
	APR-SEP	155	203	235	71	267	315	333					
NEVADA CREEK near Finn	APR-JUL	3.7	7.5	10.0	52	12.5	16.3	19.1					
	APR-SEP	4.3	8.3	11.0	52	13.7	17.7	21					
CLEARWATER nr Clearwater	APR-JUL	101	112	120	70	128	139	172					
	APR-SEP	106	117	125	69	133	144	181					
BLACKFOOT RIVER near Bonner	APR-JUL	435	509	560	67	611	685	835					
	APR-SEP	483	564	620	67	676	757	926					
CLARK FORK ab Milltown	APR-JUL	233	362	450	69	538	667	652					
	APR-SEP	287	432	530	70	628	773	755					
CLARK FORK ab Missoula	APR-JUL	689	880	1010	68	1140	1331	1487					
	APR-SEP	796	1007	1150	68	1293	1504	1681					

UPPER CLARK FORK RIVER BASIN
Reservoir Storage (1000 AF) - End of March

UPPER CLARK FORK RIVER BASIN
Watershed Snowpack Analysis - April 1, 1998

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of		
		This Year	Last Year	Avg			Last Yr	Average	
GEORGETOWN LAKE	31.0	27.5	26.3	24.8	CLARK FORK ab FLINT CRK	17	62	80	
LOWER WILLOW CREEK	4.9	3.3	1.6	2.3	FLINT CREEK	7	62	83	
NEVADA CREEK	12.6	10.1	7.6	7.3	ROCK CREEK	6	58	82	
					CLARK FORK ab BLACKFOOT	26	60	80	
					BLACKFOOT	17	42	62	
					UPPER CLARK FORK BASIN	40	53	73	

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

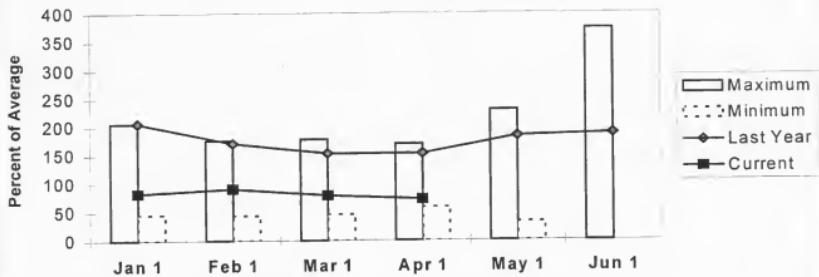
(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

(2) - The value is natural volume - actual volume may be affected by upstream water management.

Bitterroot River Basin

Snowpack conditions in the Bitterroot River Basin were below average and the fifth lowest of record, for the period 1961-1997. Snow water content was 28 percent below average and 53 percent below last year.

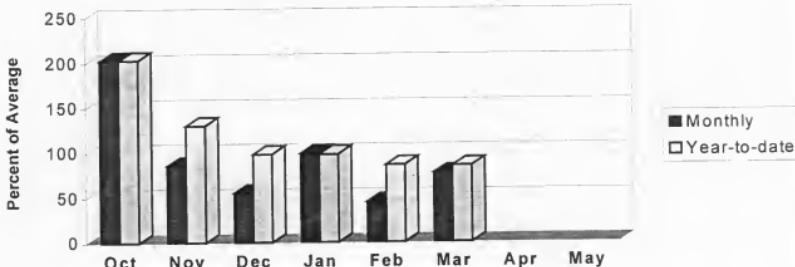
Bitterroot Snow Water Equivalent



January maximum swe was established in 1997 and minimum swe in 1977; February maximum swe was in 1972 and minimum was in 1977; March maximum swe was in 1972 and minimum swe was in 1977; April maximum swe was in 1972 and minimum swe was in 1977; May maximum swe was in 1972 and minimum swe was in 1987; and June maximum swe was 1972 and 1974 and minimum swe was in 1987 and 1992. Average is for the period 1961 through 1990.

Mountain precipitation during March was 19 percent below average and 53 percent below last year. Valley precipitation during March was 59 percent below average and 60 percent below last year. Mountain and valley water year precipitation, beginning October 1, 1997, was 15 percent below average and 43 percent below last year.

Bitterroot Precipitation



Reservoir storage, on the last day of March, was 4 percent below average and 2 percent below last year. Painted Rocks Lake storage was 75 percent below average and 72 percent below last year and Como storage was 58 percent above average and 50 percent above last year.

Streamflows, for the period April through July, are forecast to be 27 percent below average and 51 percent below last years forecasts. Basin forecasts range from 28 percent below average to 22 percent below average.

Surface Water Supply Index (SWSI) was -2.1 in the Bitterroot River.

BITTERROOT RIVER BASIN
Streamflow Forecasts - April 1, 1998

Forecast Point	Forecast Period	Future Conditions						Wetter 30-Yr Avg. (1000AF)	
		Drier		Chance Of Exceeding *		Wetter			
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	{ AVG. }	30% (1000AF)	10% (1000AF)		
WF BITTERROOT nr Conner (2)	APR-JUL	79	99	112	74	125	145	152	
	APR-SEP	84	106	120	72	134	156	166	
BITTERROOT nr Darby	APR-JUL	266	322	360	73	398	454	491	
	APR-SEP	300	356	395	73	434	490	540	
ROCK CK nr Darby (2)	APR-JUL	47	54	59	75	64	72	79	
	APR-SEP	50	57	62	75	67	75	83	
SKALNAHO CK nr Hamilton	APR-JUL	26	31	35	76	39	44	46	
	APR-SEP	30	36	40	76	44	50	53	
BURNT FORK CK nr Stevensville (2)	APR-JUL	15.0	19.5	23	78	26	30	29	
	APR-SEP	17.1	22	26	77	30	35	34	
BITTERROOT at Missoula	APR-JUL	729	852	935	72	1018	1141	1301	
	APR-SEP	799	931	1020	72	1109	1241	1418	

BITTERROOT RIVER BASIN
Reservoir Storage (1000 AF) - End of March | **BITTERROOT RIVER BASIN**
Watershed Snowpack Analysis - April 1, 1998

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
PAINTED ROCKS LAKE	31.7	3.4	12.1	13.6	WEST FORK BITTERROOT	3	52	74
COMO	34.9	24.5	16.3	15.5	EAST SIDE BITTERROOT	6	50	76
					WEST SIDE BITTERROOT	4	43	67
					BITTERROOT BASIN	12	47	71

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

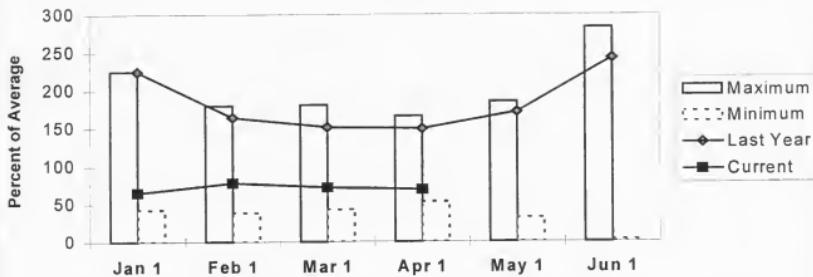
(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

(2) - The value is natural volume - actual volume may be affected by upstream water management.

Lower Clark Fork River Basin

Snowpack conditions in the Lower Clark Fork River Basin were well below average and fourth lowest of record, for the period 1961-1997. Snow water content was 31 percent below average and 54 percent below last year.

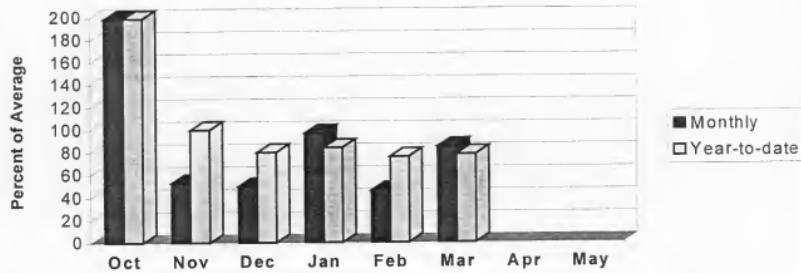
Lower Clark Fork Snow Water Equivalent



January maximum swe was established in 1997 and minimum swe was in 1977; February maximum swe was in 1972 and minimum swe was in 1977; March maximum swe was in 1972 and minimum was in 1977; April maximum swe was in 1972 and minimum swe was in 1981; May maximum swe was in 1972 and minimum swe was in 1977; and June maximum swe was in 1974 and minimum swe was in 1977. Average is for the period 1961 through 1990.

Mountain precipitation during March was 17 percent below average and 51 percent below last year. Valley precipitation during March was 5 percent below average and 41 percent below last year. Mountain and valley water year precipitation, beginning October 1, 1997, was 22 percent below average and 47 percent below last year.

Lower Clark Fork Precipitation



Noxon Rapids storage, on the last day of March, was 41 percent above average and 8 percent above last year.

Streamflows, for the period April through July, are forecast to be 27 percent below average and 53 percent below last years forecasts. Basin forecasts range from 43 percent below average to 29 percent below average.

Surface Water Supply Index (SWSI) was -2.5 in the Clark Fork River below Bitterroot River and -2.5 in the Clark Fork River below Flathead River.

LOWER CLARK FORK RIVER BASIN
Streamflow Forecasts - April 1, 1998

Forecast Point	Forecast Period	<< Drier Future Conditions >>				Wetter			30-Yr Avg. (1000AF)	
		Chance Of Exceeding *		50% (Most Probable) (1000AF)	30% (1000AF)	10% (1000AF)				
		90% (1000AF)	70% (1000AF)			% AVG.				
CLARK FORK ab Missoula	APR-JUL	689	880	1010	68	1140	1331	1487		
	APR-SEP	796	1007	1150	68	1293	1504	1681		
CLARK FORK b1 Missoula	APR-JUL	1461	1752	1950	70	2148	2439	2788		
	APR-SEP	1632	1952	2170	70	2388	2708	3099		
CLARK FORK at St. Regis (1)	APR-JUL	1586	2249	2550	69	2851	3514	3686		
	APR-SEP	1779	2516	2850	70	3184	3921	4095		
CLARK FORK nr Plains (1,2)	APR-JUL	5296	6722	7370	71	8018	9444	10450		
	APR-SEP	5819	7388	8100	71	8812	10381	11470		
THOMPSON RIVER nr Thompson Falls	APR-JUL	75	102	120	56	138	165	214		
	APR-SEP	89	118	137	57	156	185	240		
PROSPECT CREEK at Thompson Falls	APR-JUL	53	63	70	57	77	87	123		
	APR-SEP	57	68	75	57	82	93	132		
CLARK FK at Whitehorse Rpd (1,2)	APR-JUL	5680	7337	8090	69	8843	10500	11730		
	APR-SEP	6248	8072	8900	69	9728	11552	12910		

LOWER CLARK FORK RIVER BASIN
Reservoir Storage (1000 AF) - End of March

LOWER CLARK FORK RIVER BASIN
Watershed Snowpack Analysis - April 1, 1998

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
NOXON RAPIDS	335.0	326.4	302.0	231.3	LOWER CLARK FORK	14	46	69
					CLARK FORK BASIN	53	50	71
					CLARK FK ab PEND ORIELLE	103	49	72
					COLUMBIA in MONTANA	114	48	72
					COLUMBIA RIVER BASIN	141	51	73

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

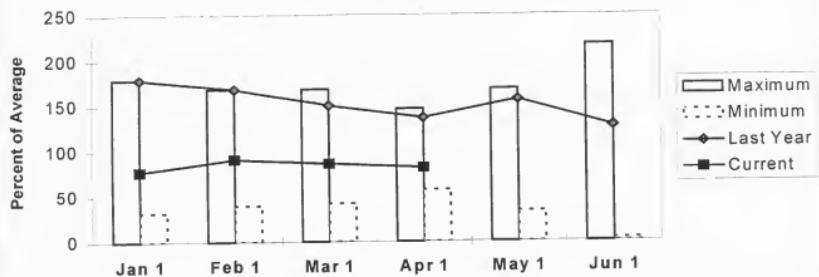
(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

(2) - The value is natural volume - actual volume may be affected by upstream water management.

Jefferson River Basin

Snowpack conditions in the Jefferson River Basin were below average and seventh lowest of record, for the period 1961-1997. Snow water content was 19 percent below average and 40 percent below last year.

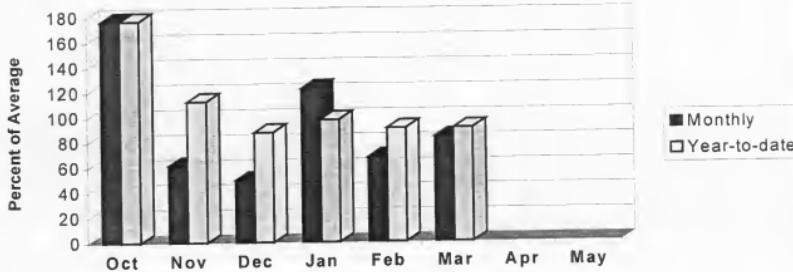
Jefferson Snow Water Equivalent



January maximum swe was established in 1997 and minimum swe was in 1977; February maximum swe was in 1997 and minimum was in 1977; March maximum swe was in 1972 and minimum was in 1977; April maximum swe was in 1972 and minimum was in 1977; May maximum swe was in 1975 and minimum swe was in 1977; and June maximum swe was in 1982 and minimum in 1987. Average is for the period 1961 through 1990.

Mountain precipitation during March was 17 percent below average and 15 percent below last year. Valley precipitation during March was 10 percent below average and 29 percent above last year. Mountain and valley water year precipitation, beginning October 1, 1997, was 9 percent below average and 33 percent below last year.

Jefferson Precipitation



Reservoir storage, on the last day of March, was 18 percent above average and 12 percent above last year. Lima storage was 41 percent above average and 4 percent below last year; Clark Canyon storage was 16 percent above average and 19 percent above last year; and Ruby River storage was 2 percent below average and 4 percent above last year.

Streamflows, for the period April through July, are forecast to be 16 percent below average and 46 percent below last years forecasts. Basin forecasts range from 23 percent below average to 10 percent below average.

Surface Water Supply Index (SWSI) was -1.4 in the Jefferson River; +0.2 in the Beaverhead River; -0.8 in the Ruby River; -1.9 in the Big Hole River; and -2.7 in the Boulder River.

JEFFERSON RIVER BASIN
Streamflow Forecasts - April 1, 1998

Forecast Point	Forecast Period	<===== Drier =====>				Future Conditions			Wetter =====>		
		Chance Of Exceeding *		50% (Most Probable)		30%		10%		30-Yr Avg.	
		90% (1000AF)	70% (1000AF)	(1000AF)	(* AVG.)	(1000AF)	(1000AF)	(1000AF)	(1000AF)	(1000AF)	
RED ROCK RIVER near Monida (2)	APR-JUL	62	73	80	83	87	98	97			
	APR-SEP	63	77	86	82	95	109	105			
BEAVERHEAD RIVER near Grant (2)	APR-JUL	78	100	115	87	130	152	132			
	APR-SEP	66	105	132	85	159	198	155			
BEAVERHEAD RIVER at Barretts (2)	APR-JUL	115	135	148	86	161	181	172			
	APR-SEP	136	158	173	85	188	210	203			
RUBY RIVER near Alder	APR-JUL	47	64	75	90	87	103	83			
	APR-SEP	57	77	90	91	104	123	99			
BIG HOLE RIVER near Melrose	APR-JUL	317	420	490	76	560	663	641			
	APR-SEP	346	456	530	76	604	714	697			
BOULDER RIVER near Boulder	APR-JUL	45	60	70	82	80	95	85			
	APR-SEP	50	65	75	82	85	101	91			
WILLOW CREEK near Harrison	APR-JUL	5.8	10.5	13.7	77	16.9	22	17.7			
	APR-SEP	6.2	11.7	15.4	77	19.1	25	20			
JEFFERSON RIVER near Three Forks (2)	APR-JUL	552	712	820	83	928	1088	985			
	APR-SEP	557	726	840	83	954	1123	1012			

JEFFERSON RIVER BASIN
Reservoir Storage (1000 AF) - End of March

JEFFERSON RIVER BASIN
Snowpack Analysis - April 1, 1998

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
LIMA	84.0	52.0	54.2	36.9	BEAVERHEAD	17	66	89
CLARK CANYON	255.6	178.2	150.0	153.6	RUBY	10	68	85
RUBY RIVER	38.8	30.7	29.4	31.2	BIGHOLE	21	57	80
					BOULDER	9	61	79
					JEFFERSON RIVER BASIN	47	61	83

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

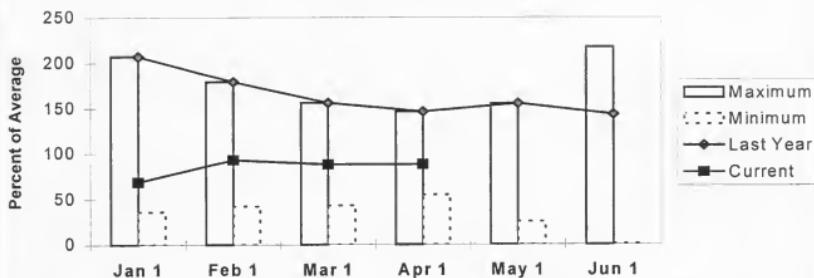
(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

(2) - The value is natural volume - actual volume may be affected by upstream water management.

Madison River Basin

Snowpack conditions in the Madison River Basin were below average. Snow water content was 12 percent below average and 40 percent below last year.

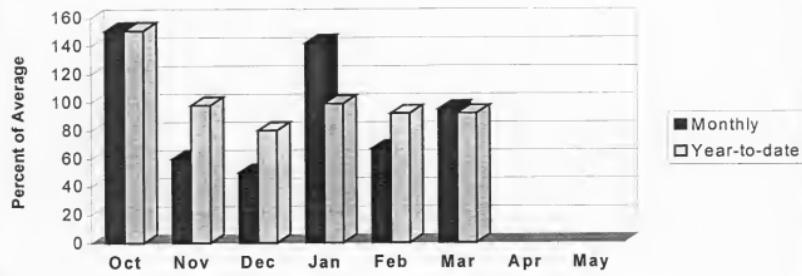
Madison Snow Water Equivalent



January maximum swe was established in 1997 and minimum swe was in 1977; February maximum swe was in 1997 and minimum was in 1977; March maximum swe was in 1997 and minimum was in 1977; April maximum swe was in 1997 and minimum was in 1977; May maximum swe was in 1997 and minimum swe was in 1977; and June maximum swe was in 1995 and minimum in 1987. Average is for the period 1961 through 1990.

Mountain and valley precipitation during March was 4 percent below average and 2 percent below last year. Mountain and valley water year precipitation, beginning October 1, 1997, was 8 percent below average and 36 percent below last year.

Madison Precipitation



Reservoir storage, on the last day of March, was 4 percent above average and 11 percent above last year. Ennis Lake storage was 11 percent below average and 5 percent above last year and Hebgen Lake storage was 6 percent above average and 12 percent above last year.

Streamflows, for the period April through July, are forecast to be 13 percent below average and 41 percent below last years forecasts. Basin forecasts range from 14 percent below average to 12 percent below average.

Surface Water Supply Index (SWSI) was +0.1 in the Madison River.

MADISON RIVER BASIN
Streamflow Forecasts - April 1, 1998

Forecast Point	Forecast Period	Future Conditions						Wetter >>>	
		<===== Drier =====>		Chance Of Exceeding *		Wetter			
		90%	70%	50% (Most Probable)	(1000AF) (% AVG.)	30%	10%		
(1000AF)	(1000AF)	(1000AF)	(1000AF)	(1000AF)	(1000AF)	(1000AF)	(1000AF)	(1000AF)	
MADISON RIVER near Grayling (2)	APR-JUL	272	303	325	86	347	378	380	
	APR-SEP	361	399	425	87	451	489	486	
MADISON RIVER near McAllister (2)	APR-JUL	496	546	580	88	614	664	662	
	APR-SEP	643	698	735	88	772	827	831	

MADISON RIVER BASIN
Reservoir Storage (1000 AF) - End of March

MADISON RIVER BASIN
Watershed Snowpack Analysis - April 1, 1998

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
ENNIS LAKE	41.0	29.6	28.2	33.2	MADISON abv HEBGEN LAKE	6	54	87
HEBGEN LAKE	377.5	262.4	234.4	246.6	MADISON blw HEBGEN LAKE	11	66	89
					MADISON RIVER BASIN	17	60	88

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

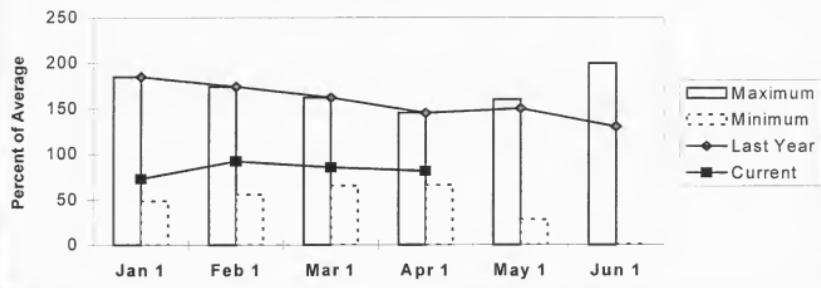
(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

(2) - The value is natural volume - actual volume may be affected by upstream water management.

Gallatin River Basin

Snowpack conditions in the Gallatin River Basin were below average and sixth lowest of record, for the period 1961-1997. Snow water content was 19 percent below average and 43 percent below last year.

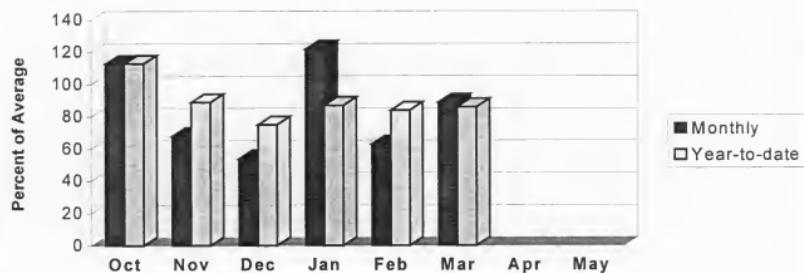
Gallatin Snow Water Equivalent



January maximum swe was established in 1997 and minimum swe was in 1966; February maximum swe was in 1997 and minimum was in 1981; March maximum swe was in 1997 and minimum was in 1977 and 1987; April maximum swe was in 1997 and minimum was in 1987; May maximum swe was in 1970 and minimum swe was in 1987; and June maximum swe was in 1975 and minimum in 1987. Average is for the period 1961 through 1990.

Mountain precipitation during March was 12 percent below average and 8 percent below last year. Valley precipitation during March was 27 percent above average and 30 percent above last year. Mountain and valley water year precipitation, beginning October 1, 1997, was 14 percent below average and 40 percent below last year.

Gallatin Precipitation



Middle Creek storage, on the last day of March, was 93 percent above average and 10 percent above last year.

Streamflows, for the period April through July, are forecast to be 13 percent below average and 42 percent below last years forecasts. Basin forecasts range from 15 percent below average to 11 percent below average.

Surface Water Supply Index (SWSI) was -1.4 in the Gallatin River.

GALLATIN RIVER BASIN
Streamflow Forecasts - April 1, 1998

Forecast Point	Forecast Period	Drier				Future Conditions			Wetter			
		90% (1000AF)		70% (1000AF)		50% (Most Probable) (1000AF)		% AVG. (%)	30% (1000AF)		10% (1000AF)	
GALLATIN RIVER near Gateway	APR-JUL	324	363			390	88		417	456		441
	APR-SEP	389	431			460	89		489	531		518
E & W FK HYALITE CREEK near Bozeman	APR-JUL	15.6	18.5			21	89		23	25		23
	APR-SEP	18.4	21			24	90		26	29		26
HYALITE CREEK nr Bozeman (2)	APR-JUL	24	29			32	89		35	41		36
	APR-SEP	28	33			37	88		41	46		42
GALLATIN RIVER at Logan (2)	APR-JUL	288	369			425	85		481	562		498
	APR-SEP	357	442			500	86		558	643		581

GALLATIN RIVER BASIN
Reservoir Storage (1000 AF) - End of March

GALLATIN RIVER BASIN
Watershed Snowpack Analysis - April 1, 1998

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
MIDDLE CREEK	10.2	7.9	7.2	4.1	UPPER GALLATIN	7	60	85
					HYALITE	4	59	77
					BRIDGER	3	48	77
					GALLATIN RIVER BASIN	14	57	81
					MISSOURI HEADWATERS	71	59	83

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

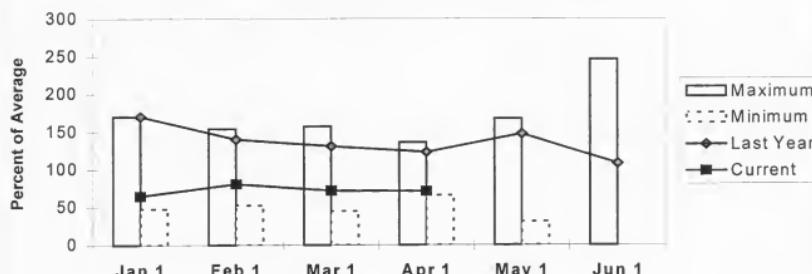
(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

(2) - The value is natural volume - actual volume may be affected by upstream water management.

Missouri Mainstem River Basin

Snowpack conditions in the Mainstem Missouri River Basin were well below average. Snow water content was in the Headwaters Missouri Mainstem was 29 percent below average, 42 percent below last year, and second lowest of record for the period 1961-1997; the Smith-Judith-Musselshell was 30 percent below average, 45 percent below last year, and third lowest of record for the period 1961-1997; and the Sun-Teton-Marias was 46 percent below average, 59 percent below last year, and tied for the lowest of record with 1984, for the period 1969-1997.

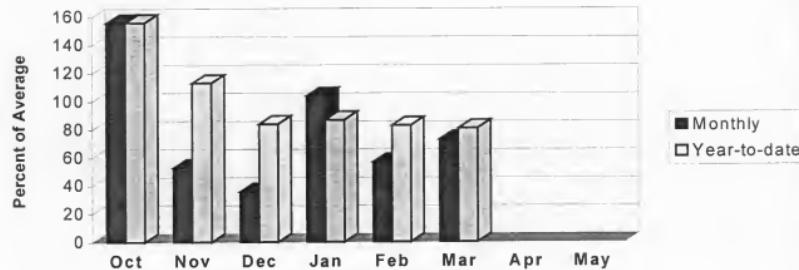
Headwaters Mainstem Snow Water Equivalent



January maximum swe was established in 1997 and minimum swe in 1977; February maximum swe was in 1972 and minimum swe was in 1977; March maximum swe in 1972 and minimum swe was in 1977; April maximum swe was in 1972 and minimum swe was in 1961; May maximum swe was in 1975 and minimum swe was in 1977; and June maximum swe was in 1982 and minimum swe was in 1992. Average is for the period 1961 through 1990.

Mountain precipitation during March was 27 percent below average and 22 percent below last year. Valley precipitation during March was 29 percent below average and 5 percent below last year. Mountain and valley water year precipitation, beginning October 1, 1997, was 19 percent below average and 28 percent below last year.

Headwaters Mainstem Precipitation



Reservoir storage, on the last day of March, was 10 percent above average and 32 percent above last year. Canyon Ferry Lake storage was 10 percent above average and 37 percent above last year; Helena Valley storage was at average and 7 percent below last year; Lake Helena storage was 7 percent above average and the same as last year; Hauser & Helena storage was 3 percent above average and the same as last year; Holter Lake storage was 20 percent above average and the same as last year; and Fort Peck Lake storage was 2 percent above average and 3 percent below last year.

Streamflows, for the period April through July, are forecast to be 24 percent below average and 52 percent below last years forecasts. Basin forecasts range from 33 percent below average to 17 percent below average.

Surface Water Supply Index (SWSI) was -0.9 in the Missouri River above Canyon Ferry; -0.3 in the Missouri River below Canyon Ferry; -0.2 in the Missouri River above Ft. Peck; and 0.0 in the Missouri River below Ft. Peck.

MISSOURI MAINSTEM RIVER BASIN
Streamflow Forecasts - April 1, 1998

Forecast Point	Forecast Period	Future Conditions						Wetter >>	30-Yr Avg.		
		Drier		Chance Of Exceeding *		Wetter					
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF) (# AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)				
MISSOURI RIVER at Toston (2)	APR-JUL	1024	1439	1720	83	2001	2416	2075			
	APR-SEP	1474	1706	2000	83	2294	2537	2416			
PRICKLY PEAR CREEK near Clancy	APR-JUL	3.1	12.3	18.5	80	25	34	23			
	APR-SEP	4.1	14.5	22	80	29	39	27			
SUN RIVER at Gibson Dam (2)	APR-JUL	148	224	275	58	326	402	478			
	APR-SEP	176	256	310	59	364	444	526			
MISSOURI RIVER at Fort Benton (2)	APR-JUL	1161	1869	2350	76	2831	3539	3087			
	APR-SEP	1876	2254	2780	76	3306	3788	3678			
MARIAS RIVER near Shelby (2)	APR-JUL	154	241	300	67	359	446	447			
	APR-SEP	176	265	325	67	385	474	487			
MISSOURI RIVER at Virgelle (2)	APR-JUL	1307	2052	2625	73	3158	3943	3595			
	APR-SEP	2066	2493	3090	73	3687	4512	4217			
MISSOURI RIVER near Landusky (2)	APR-JUL	1545	2352	2900	74	3448	4255	3897			
	APR-SEP	2290	2822	3410	75	3998	4992	4580			
MISSOURI RIVER below Fort Peck (2)	APR-JUL	1542	2321	2850	71	3379	4158	4015			
	APR-SEP	1855	2698	3270	73	3842	4685	4467			
LAKE SAKAKAWEA Inflow (2)	APR-JUL	6148	7319	8115	82	8911	10082	9897			
	APR-SEP	6581	8367	9330	82	10293	12594	11346			

MISSOURI MAINSTEM RIVER BASIN
Reservoir Storage (1000 AF) - End of March

MISSOURI MAINSTEM RIVER BASIN
Watershed Snowpack Analysis - April 1, 1998

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of		
		This Year	Last Year	Avg			Last Yr	Average	
CANYON FERRY LAKE	2043.0	1637.0	1195.0	1489.0	MISSOURI MAINSTEM	10	58	71	
HELENA VALLEY	9.2	4.0	4.3	4.0	SMITH-JUDITH-MUSSELSHELL	17	55	70	
LAKE HELENA	10.4	10.9	10.9	10.2	SUN-TETON-MARIAS	14	40	54	
HAUSER & HELENA	61.9	63.1	63.1	61.0	MISSOURI abv FT PECK	40	49	63	
HOLTER LAKE	81.9	80.8	80.7	67.2	MILK RIVER BASIN	6	83	47	
FORT PECK LAKE (MAF)	18.9	15.2	15.7	14.9	MISSOURI MAINSTEM BASIN	45	50	63	

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

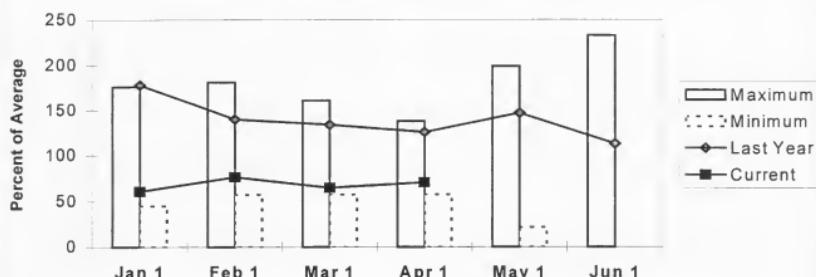
(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

(2) - The value is natural volume - actual volume may be affected by upstream water management.

Smith-Judith-Musselshell River Basins

Snowpack conditions in the Smith-Judith-Musselshell River Basins were well below average and third lowest of record, for the period 1966-1997. Snow water content in the Smith River Basin was 25 percent below average and 43 percent below last year; the Judith River Basin was 32 percent below average and 40 percent below last year; and the Musselshell River Basin was 29 percent below average and 48 percent below last year.

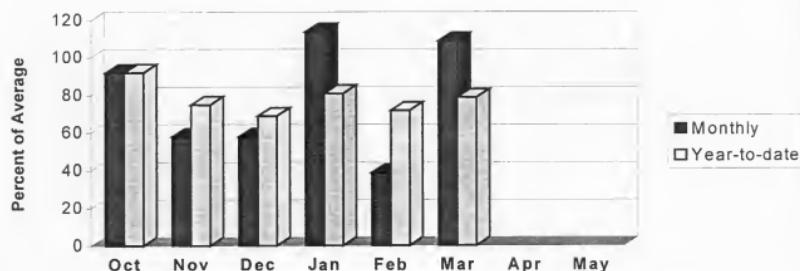
Smith-Judith-Musselshell Snow Water Equivalent



January maximum swe was established in 1997 and minimum swe in 1988; February maximum swe was in 1978 and minimum swe was in 1987; March maximum swe was in 1978 and minimum swe was in 1987; April maximum swe was in 1970 and minimum swe was in 1992; and May maximum swe was in 1970 and minimum swe was in 1987; and June maximum swe was in 1982 and minimum swe was in 1992. Average is for the period 1961 through 1990.

Mountain and valley precipitation for the combined basins was 9 percent above average and 11 percent above last year and the water year precipitation was 21 percent below average and 36 percent below last year. Smith River mountain and valley precipitation during March was 9 percent below average and 12 percent below last year and water year precipitation was 22 percent below average and 42 percent below last year; Judith River mountain and valley precipitation during March was 26 percent above average and 25 percent above last year and water year precipitation was 18 percent below average and 28 percent below last year; and the Musselshell River mountain and valley March precipitation was 39 percent above average and 55 percent above last year and the water year precipitation was 12 percent below average and 37 percent below last year.

Smith-Judith-Musselshell Precipitation



Reservoir storage, on the last day of March, was 34 percent above average and 25 percent above last year. Smith River storage was 32 percent above average and 40 percent above last year; Newlan Creek storage was 16 percent above average and 19 percent above last year; Bair storage was 6 percent above average and 56 percent above last year; Martinsdale storage was 85 percent above average and 64 percent above last year; and Deadman's Basin was 30 percent above average and 15 percent above last year.

Streamflows, for the period April through July, are forecast to be 27 percent below average and 45 percent below last years forecasts. Basin forecast range from 37 percent below average to 12 percent below average.

Surface Water Supply Index (SWSI) was -2.2 in the Smith River and -0.2 in the Musselshell River.

SMITH-JUDITH-MUSSELSHELL RIVER BASINS
Streamflow Forecasts - April 1, 1998

Forecast Point	Forecast Period	<< Drier Future Conditions >>				Wetter			30-Yr Avg. (1000AF)	
		Chance Of Exceeding *		50% (Most Probable) (1000AF) (# AVG.)	30% (1000AF)	10% (1000AF)				
		90% (1000AF)	70% (1000AF)							
SHEEP CREEK nr White Sulphur Springs	APR-JUL	8.3	10.8	12.5	69	14.2	16.7	18.1		
	APR-SEP	10.4	13.1	15.0	71	16.9	19.6	21		
SMITH RIVER blw Eagle Creek	APR-JUL	49	68	80	78	92	111	103		
	APR-SEP	61	84	100	81	116	139	124		
NF MUSSELSHELL near Delpine	APR-JUL	0.84	2.13	3.00	63	3.87	5.16	4.80		
	APR-SEP	1.08	2.52	3.50	63	4.48	5.92	5.60		
SF MUSSELSHELL abv Martinsdale	APR-JUL	4.6	22	34	65	46	63	52		
	APR-SEP	5.5	24	36	64	48	67	56		

SMITH-JUDITH-MUSSELSHELL RIVER BASINS Reservoir Storage (1000 AF) - End of March				SMITH-JUDITH-MUSSELSHELL RIVER BASINS Watershed Snowpack Analysis - April 1, 1998				
Reservoir	Usable Capacity	*** Usable Storage ***	Watershed	Number of Data Sites	This Year	as % of	Last Yr Average	
	This Year	Last Year	Avg					
SMITH RIVER	10.6	9.8	7.0	7.4	SMITH	7	57	75
NEWLAW CREEK	12.4	9.6	8.1	8.3	JUDITH	9	60	68
BAIR	7.0	5.0	3.2	4.7	MUSSELSHELL	9	53	71
MARTINSDALE	23.1	17.9	10.9	9.7	SMITH-JUDITH-MUSSELSHELL	17	55	70
DEADMAN'S BASIN	72.2	65.0	56.3	50.1				

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

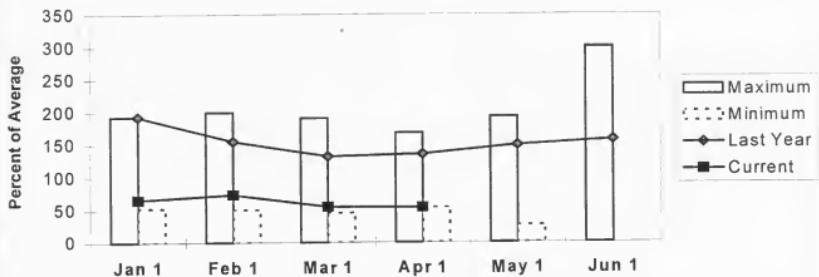
(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

(2) - The value is natural volume - actual volume may be affected by upstream water management.

Sun-Teton-Marias River Basins

Snowpack conditions in the Sun-Teton-Marias River Basins were well below average and tied for the lowest of record, for the period 1969-1997. Snow water content in the Sun River Basin was 47 percent below average and 62 percent below last year; the Teton River Basin was 48 percent below average and 59 percent below last year; and the Marias River Basin was 46 percent below average and 59 percent below last year.

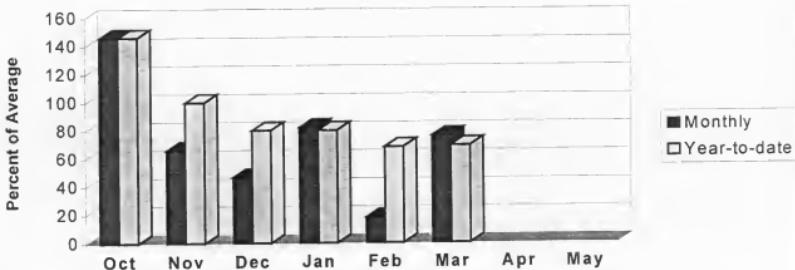
Sun-Teton-Marias Snow Water Equivalent



January maximum swe was established in 1997 and minimum swe was in 1988. February maximum swe was in 1972 and minimum swe was in 1977; March maximum swe was in 1972 and minimum swe was in 1984; April maximum swe was in 1972 and minimum swe was in 1984; May maximum swe was in 1972 and minimum swe was in 1977; and June maximum was in 1982 and minimum swe was in 1992. Average is for the period 1961 through 1990.

Combined mountain and valley precipitation for the three basins during March was 24 percent below average and 42 percent below last year with the water year precipitation, beginning October 1, 1997, 31 percent below average and 46 percent below last year. Mountain and valley precipitation in the Sun River was 15 percent below average and 26 percent below last year with the water year precipitation 29 percent below average and 40 percent below last year; in the Teton River was 35 percent below average and 53 percent below last year with the water year precipitation 30 percent below average and 43 percent below last year; and in the Marias River was 21 percent below average and 41 percent below last year with the water year precipitation 32 percent below average and 48 percent below last year.

Sun-Teton-Marias Precipitation



Reservoir storage, on the last day of March, was 21 percent above average and 1 percent above last year. Gibson storage was 4 percent below average and 35 percent above last year; Fishkun storage was 108 percent above average and 1 percent above last year; Willow Creek storage was 31 percent above average and 202 percent above last year; Lower Two Medicine Lake storage was 59 percent above average and 198 percent above last year; Four Horns Lake storage was 13 percent below average and 11 percent below last year; Swift storage was 8 percent above average and 40 percent above last year; Lake Frances storage was 4 percent above average and 4 percent below last year; and Lake Elwell (Tiber) storage was 26 percent above average and 4 percent below last year.

Streamflows, for the period April through July, are forecast to be 38 percent below average and 55 percent below last years forecasts. Basin forecasts range from 42 percent below average to 33 percent below average.

Surface Water Supply Index (SWSI) was -2.9 the Sun River; -3.4 in the Teton River; -2.9 in the Marias River; and -2.4 in the Birch/Dupuyer Creeks.

SUN-TETON-MARIAS RIVER BASINS
Streamflow Forecasts - April 1, 1998

Forecast Point	Forecast Period	Future Conditions				Wetter			30-Yr Avg. (1000AF)	
		<< Drier		Chance Of Exceeding *		30% (1000AF)				
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	10% (1000AF)				
SUN RIVER at Gibson Dam (2)	APR-JUL	148	224	275	58	326	402	478		
	APR-SEP	176	256	310	59	364	444	526		
TWO MEDICINE RIVER near Browning (2)	APR-JUL	61	102	130	61	158	199	215		
	APR-SEP	72	112	140	61	168	208	228		
BADGER CREEK near Browning (2)	APR-JUL	33	52	65	63	78	97	104		
	APR-SEP	43	64	78	65	92	113	120		
SWIFT RESERVOIR Inflow near Dupuyer	APR-JUL	21	35	44	65	54	68	68		
	APR-SEP	29	43	53	66	63	78	80		
DUPUYER CREEK near Valier	APR-JUL	1.5	4.4	10.6	68	16.8	26	15.5		
	APR-SEP	1.7	5.0	11.7	67	18.4	28	17.4		
CUT BANK CREEK at Cut Bank	APR-JUL	34	48	57	66	66	80	87		
	APR-SEP	39	53	63	66	73	87	96		
MARIAS RIVER near Shelby (2)	APR-JUL	154	241	300	67	359	446	447		
	APR-SEP	176	265	325	67	385	474	487		

SUN-TETON-MARIAS RIVER BASINS
Reservoir Storage (1000 AF) - End of March

SUN-TETON-MARIAS RIVER BASINS
Watershed Snowpack Analysis - April 1, 1998

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
GIBSON	99.1	48.4	35.8	50.5	SUN	7	38	53
PISHKUN	32.0	19.2	19.1	17.8	TETON	4	41	52
WILLOW CREEK	32.2	29.9	9.9	22.8	MARIAS	6	41	54
LOWER TWO MEDICINE LAKE	11.9	11.9	4.0	7.5	SUN-TETON-MARIAS	14	40	54
FOUR HORNS LAKE	19.2	10.9	12.3	12.5				
SWIFT	30.0	18.6	13.3	17.2				
LAKE FRANCES	112.0	74.5	77.3	71.6				
LAKE ELWELL (TIBER)	1347.0	753.2	782.4	596.7				

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

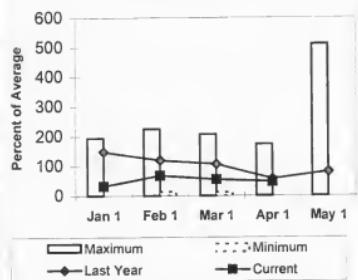
(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

(2) - The value is natural volume - actual volume may be affected by upstream water management.

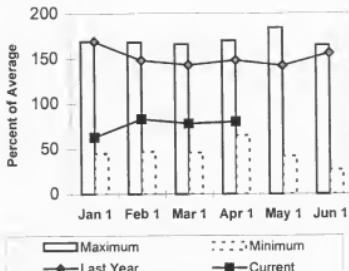
St. Mary and Milk River Basins

Snowpack conditions in the St. Mary River and Milk River Basins were below average. Snow water content in the St. Mary River Basin was 20 percent below average, 46 percent below last year and seventh lowest of record, for the period 1961-1997. The Bearpaw Mountains were 53 percent below average, 18 percent below last year, and sixth lowest of record, for the period 1973 through 1997.

Bearpaw Mountains Snow Water Equivalent



St. Mary Snow Water Equivalent

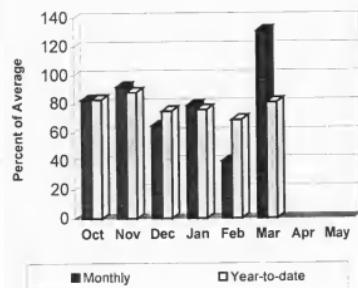


Bearpaw - January maximum swe was established in 1978 and minimum swe was in 1981; February maximum swe was 1978 and minimum was in 1973; March maximum swe was 1978 and minimum swe was 1981; April maximum swe was in 1975 and minimum swe was in 1983; May maximum swe was 1975 and the minimum has occurred in several years. Average is for the period 1961 through 1990.

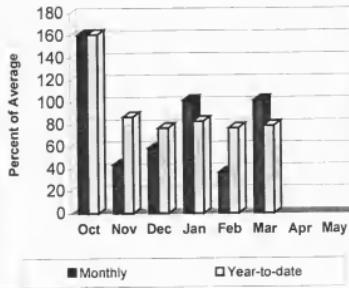
St. Mary - January maximum swe was established in 1997 and minimum swe was in 1988; February maximum swe was in 1972 and minimum swe was in 1977; March maximum swe was in 1972 and minimum swe was in 1977; April maximum swe was in 1972 and minimum swe was in 1992; May maximum swe was in 1997 and minimum swe was in 1977; and June maximum swe was in 1991 and minimum swe was 1992. Average is for the period 1961 through 1990.

Combined Mountain and valley precipitation during March was 13 percent above average and 1 percent below last year with the water year precipitation, beginning October 1, 1997, 20 percent below average and 30 percent below last year. Mountain and Valley precipitation in the St. Mary River was 2 percent above average and 28 percent below last year with the water year precipitation, beginning October 1, 1997, 21 percent below average and 37 percent below last year. The Milk River was 31 percent above average and 80 percent above last year with the water year precipitation, beginning October 1, 1997, 19 percent below average and 13 percent below last year.

Milk Precipitation



St. Mary Precipitation



Reservoir storage, on the last day of March, was 10 percent below average and 29 percent below last year. Lake Sherburne storage was 8 percent below average and 28 percent below last year; Fresno storage was 29 percent below average and 49 percent below last year; Beaver Creek storage was 18 percent above average and 26 percent below last year; and Nelson storage was 26 percent above average and 32 percent above last year.

Streamflows in the St. Mary, for the period April through July, are forecast to be 22 percent below average and 39 percent below last years forecasts. Streamflow in the Milk, for the period April through July, are forecast to be 44 percent below average and 58 percent below last years forecasts.

Surface Water Supply Index (SWSI) was -2.8 in the Milk River.

ST. MARY and MILK RIVER BASINS
Streamflow Forecasts - April 1, 1998

Forecast Point	Forecast Period	Future Conditions						30-Yr Avg. (1000AF)	
		Drier		Chance Of Exceeding *		Wetter			
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(# AVG.)	30% (1000AF)	10% (1000AF)		
SWIFTCURRENT CREEK at Sherburne (2)	APR-JUL	71	79	85	79	91	99	107	
	APR-SEP	84	94	100	80	106	116	125	
ST. MARY RIVER near Babb	APR-JUL	255	285	305	77	325	355	395	
	APR-SEP	289	325	350	76	375	411	463	
ST. MARY RIVER at US/CAN Border (2)	APR-JUL	286	330	360	78	390	434	462	
	APR-SEP	342	391	425	79	459	508	539	
MILK RIVER at Western Crossing	APR-JUL	9.0	16.7	22	60	27	35	37	
	APR-SEP	10.0	17.7	23	59	28	36	39	
MILK RIVER at Eastern Crossing (2)	APR-JUL	5.7	22	33	57	44	60	58	
	APR-SEP	12.8	28	38	57	48	63	67	
BEAVER CREEK near Havre	APR-JUL	0.00	0.21	3.00	32	5.79	9.89	9.50	

ST. MARY and MILK RIVER BASINS
Reservoir Storage (1000 AF) - End of March

ST. MARY and MILK RIVER BASINS
Watershed Snowpack Analysis - April 1, 1998

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
LAKE SHERBURNE	64.3	22.8	31.5	24.8	ST. MARY	3	54	80
FRESNO	127.0	55.1	108.6	77.1	BEARPAW MOUNTAINS	6	83	47
BEAVER CREEK	3.5	2.6	3.5	2.2	CYPRESS HILLS, CANADA	0	0	0
NELSON	66.8	45.9	34.9	36.5	MILK RIVER BASIN	6	83	47
					ST. MARY & MILK BASINS	9	57	73

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

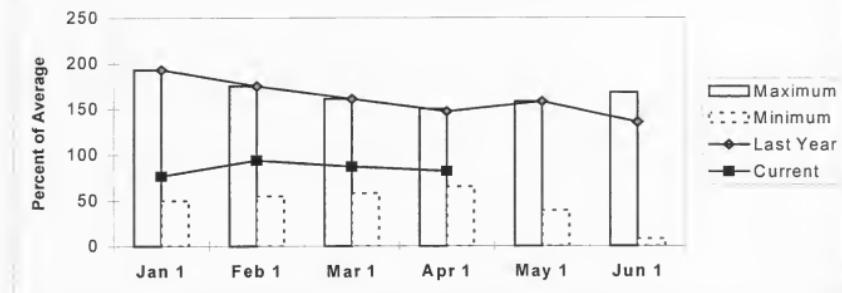
(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

(2) - The value is natural volume - actual volume may be affected by upstream water management.

Upper Yellowstone River Basin

Snowpack conditions in the Upper Yellowstone River Basin were below average and sixth lowest of record, for the period 1961-1997. Snow water content was 18 percent below average and 44 percent below last year.

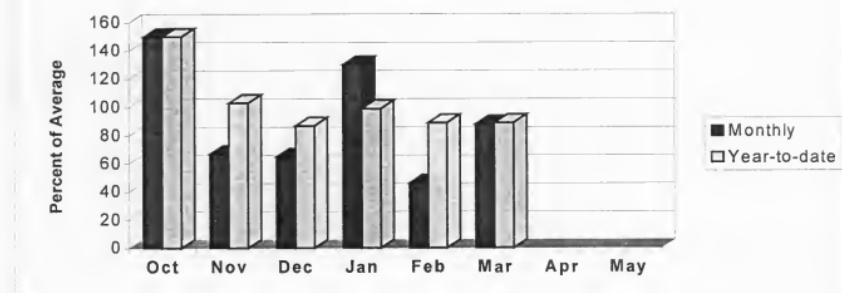
Upper Yellowstone Snow Water Equivalent



January maximum swe was established in 1997 and minimum swe was in 1988; February maximum swe was in 1997 and minimum swe was in 1977; March maximum swe was in 1997 and minimum swe was in 1977; April maximum swe was in 1971 and minimum swe was in 1981; May maximum swe was in 1997 and minimum swe was in 1987; and June maximum swe was 1982 and minimum swe was in 1987 and 1994. Average is for the period 1961 through 1990.

Snowpack conditions in the Upper Yellowstone River Basin were below average and sixth lowest of record, for the period 1961-1997. Snow water content was 18 percent below average and 44 percent below last year.

Upper Yellowstone Precipitation



Reservoir storage, on the last day of March, was 19 percent above average and 22 percent above last year. Mystic Lake storage was 55 percent below average and 367 percent above last year and Cooney storage was 32 percent above average and 16 percent above last year.

Streamflows, for the period April through July, are forecast to be 18 percent below average and 46 percent below last years forecasts. Basin forecasts range from 23 percent below average to 13 percent below average.

Surface Water Supply Index (SWSI) was -1.6 in the Yellowstone River above Bighorn River; -1.4 in the Yellowstone River above Livingston; -1.8 in the Shields River; -1.8 in the Boulder River; -2.2 in the Stillwater River; -1.7 in the Rock/Red Lodge Creeks; and -1.9 in the Clarks Fork River.

UPPER YELLOWSTONE RIVER BASIN
 Streamflow Forecasts - April 1, 1998

Forecast Point	Forecast Period	Drier				Future Conditions			Wetter		
		90% (1000AF)		70% (1000AF)		Chance Of Exceeding *		30% (1000AF)		10% (1000AF)	
						(1000AF) (% AVG.)					
YELLOWSTONE at Lake Outlet	APR-JUL	405	462			500	87	538	595	573	
	APR-SEP	566	640			690	87	740	814	792	
YELLOWSTONE RIVER at Corwin Springs	APR-JUL	1161	1256			1320	82	1384	1479	1609	
	APR-SEP	1376	1503			1590	82	1677	1804	1937	
YELLOWSTONE RIVER near Livingston	APR-JUL	1326	1444			1525	82	1606	1724	1855	
	APR-SEP	1596	1741			1840	82	1939	2084	2241	
SHIELDS RIVER near Livingston	APR-JUL	84	108			125	77	142	166	162	
	APR-SEP	96	121			138	77	155	180	179	
BOULDER RIVER at Big Timber	APR-JUL	206	247			275	82	303	344	335	
	APR-SEP	230	272			300	82	328	370	364	
WEST ROSEBUD CREEK near Roscoe (2)	APR-JUL	42	48			52	85	56	62	61	
	APR-SEP	55	62			67	85	72	79	79	
STILLWATER RIVER nr Absarokee (2)	APR-JUL	316	384			430	86	476	544	498	
	APR-SEP	401	466			510	86	554	619	593	
CLARKS FORK RIVER near Belfry	APR-JUL	350	404			440	83	476	530	532	
	APR-SEP	385	444			485	82	526	585	590	
COONEY RESERVOIR INFLOW (2)	APR-JUL	9.7	25			36	77	47	62	47	
	APR-SEP	18.1	34			44	77	55	70	57	
YELLOWSTONE RIVER at Billings (2)	APR-JUL	2181	2624			2925	82	3226	3669	3577	
	APR-SEP	2948	3174			3500	83	3826	4043	4211	

 UPPER YELLOWSTONE RIVER BASIN
 Reservoir Storage (1000 AF) - End of March

 UPPER YELLOWSTONE RIVER BASIN
 Watershed Snowpack Analysis - April 1, 1998

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of Last Yr	Average
		This Year	Last Year	Avg				
MYSTIC LAKE	21.0	1.4	0.3	3.1	YELLOWSTONE ab LIVINGSTON	18	57	88
COONEY	27.4	22.3	19.2	16.9	SHIELDS	7	47	76
					BOULDER-STILLWATER	7	55	71
					CLARK'S FORK-ROCK CREEK	13	58	82
					UPPER YELLOWSTONE RIVER	41	56	82

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

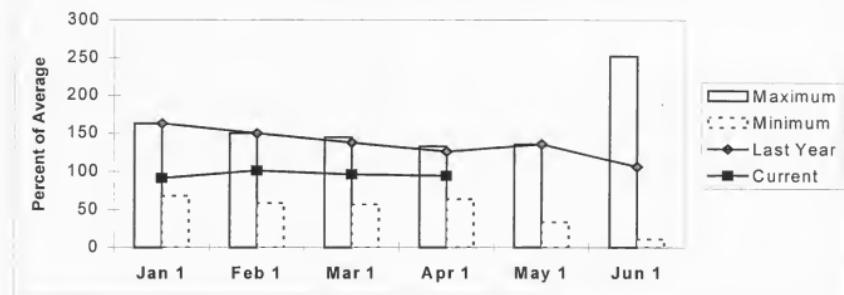
(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

(2) - The value is natural volume - actual volume may be affected by upstream water management.

Lower Yellowstone River Basin

Snowpack conditions in the Lower Yellowstone River Basin were near average. Snow water content was 6 percent below average and 28 percent below last year.

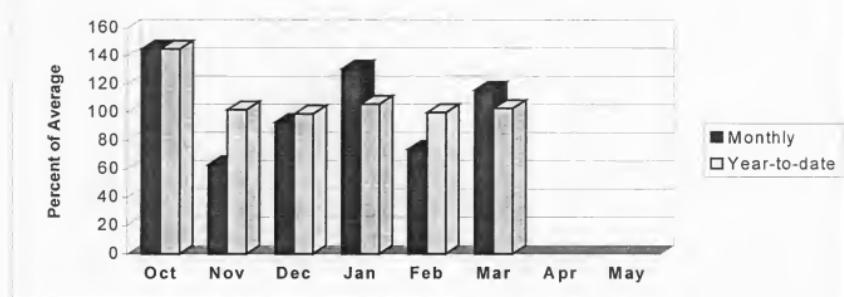
Lower Yellowstone Snow Water Equivalent



January maximum swe was established in 1997 and minimum swe was in 1981; February maximum swe was in 1997 and minimum swe was in 1981; March maximum swe was in 1986 and minimum swe was in 1977; April maximum swe was in 1986 and minimum swe was in 1981; May maximum swe was in 1997 and minimum swe was in 1981; and June maximum swe was in 1995 and minimum swe was in 1994. Average is for the period 1961 through 1990.

Mountain and valley precipitation during March was 16 percent above average and 25 percent above last year. Water year precipitation, beginning October 1, 1997, was 3 percent above average and 20 percent below last year.

Lower Yellowstone Precipitation



Reservoir storage, on the last day of March, was 4 percent above average and 11 percent above last year. Bighorn Lake storage was 8 percent above average and 13 percent above last year and Tongue River was 74 percent below average and 63 percent below last year. The Tongue reservoir storage is low due to construction work at the dam.

Streamflows, for the period April through July, are forecast to be 13 percent below average and 45 percent below last years forecasts. Basin forecasts range from 27 percent below average to 4 percent below average.

Surface Water Supply Index (SWSI) was -0.4 in the Yellowstone River below Bighorn River; +0.9 in the Bighorn River below Bighorn Lake; -0.9 in the Little Bighorn River; +1.5 in the Tongue River; and -0.6 in the Powder River.

LOWER YELLOWSTONE RIVER BASIN
Streamflow Forecasts - April 1, 1998

Forecast Point	Forecast Period	Future Conditions				>>>	
		90% (10000AF)	70% (10000AF)	Chance Of Exceeding * 50% (Most Probable) (10000AF)	10% (# AVG.)	30% (10000AF)	10% (10000AF)
YELLOWSTONE RIVER at Billings (2)	APR-JUL	2181	2624	2925	82	3226	3669
	APR-SEP	2948	3174	3500	83	3826	4043
BIGHORN RIVER nr St. Xavier (2)	APR-JUL	1133	1396	1575	96	1754	2017
	APR-SEP	1220	1556	1740	97	1924	2260
LITTLE BIGHORN RIVER nr Hardin	APR-JUL	58	98	125	89	152	192
	APR-SEP	63	109	140	89	171	217
TONGUE RIVER stateline nr Decker (2)	APR-JUL	141	185	215	94	245	289
	APR-SEP	163	209	240	94	271	317
YELLOWSTONE RIVER at Miles City (2)	APR-JUL	3360	4173	4725	87	5277	6090
	APR-SEP	4208	4877	5460	87	6043	6721
POWDER RIVER at Moorhead	APR-JUL	78	127	160	76	193	242
	APR-SEP	100	145	175	75	205	250
POWDER RIVER near Locate	APR-JUL	94	148	185	73	222	276
	APR-SEP	93	157	200	73	243	307
YELLOWSTONE RIVER nr Sidney (2)	APR-JUL	3258	4355	5100	86	5845	6942
	APR-SEP	4293	5032	5880	86	6728	7427

LOWER YELLOWSTONE RIVER BASIN
Reservoir Storage (1000 AF) - End of March | **LOWER YELLOWSTONE RIVER BASIN**
Watershed Snowpack Analysis - April 1, 1998

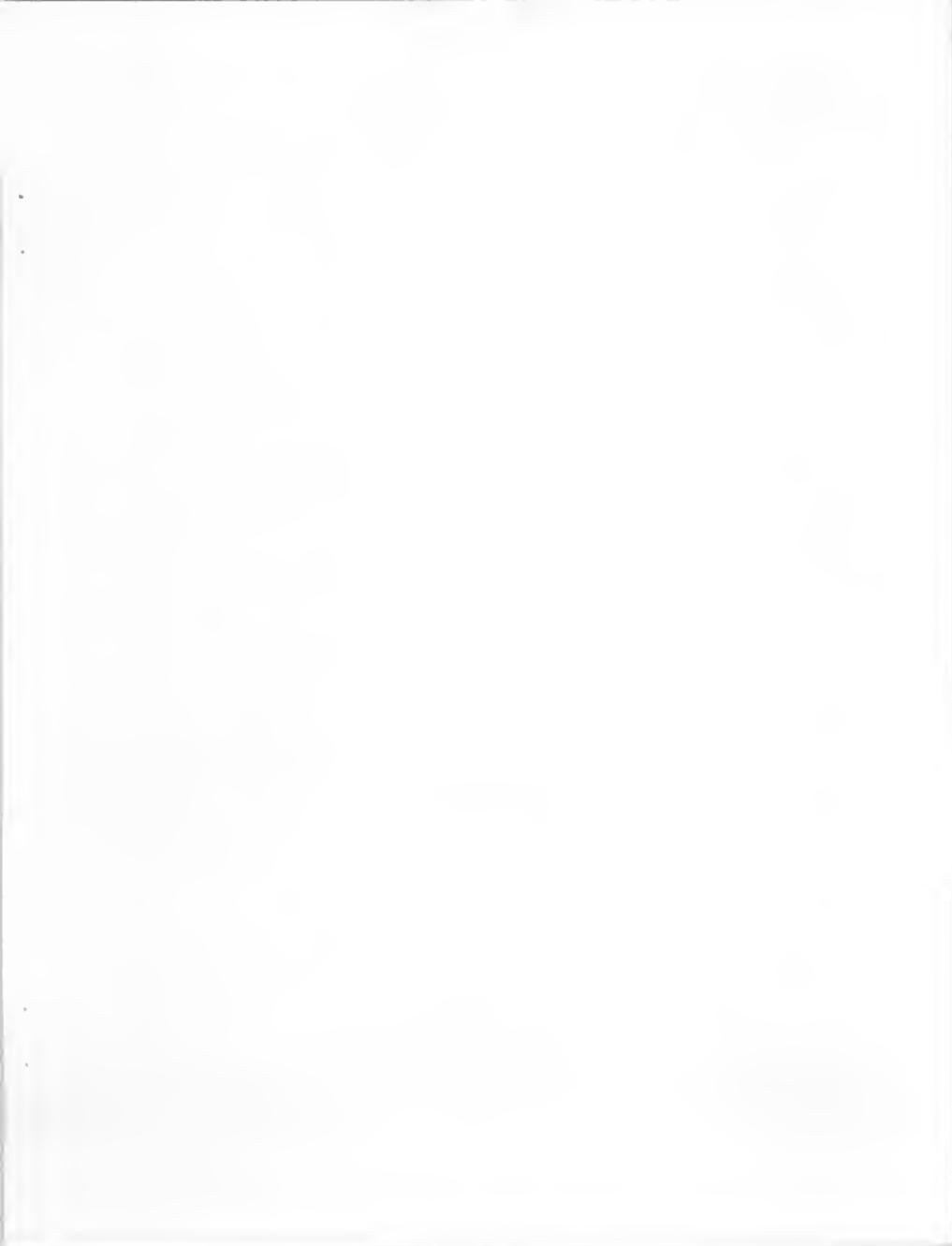
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of Last Yr Average
		This Year	Last Year	Avg			
BIGHORN LAKE	1356.0	860.4	761.0	798.5	WIND RIVER (Wyoming)	20	71 97
TONGUE RIVER	68.0	9.5	25.5	36.1	SHOSHONE RIVER (Wyoming)	7	61 91
					BIGHORN RIVER (Wyoming)	21	71 94
					LITTLE BIGHORN (Wyoming)	3	82 90
					TONGUE RIVER (Wyoming)	9	81 90
					POWDER RIVER (Wyoming)	9	80 94
					LOWER YELLOWSTONE RIVER	49	73 94
					YELLOWSTONE BASIN	85	63 87

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

(2) - The value is natural volume - actual volume may be affected by upstream water management.





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Montana
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